GRAND PRIX INTERNATIONAL

LAUDA, PROST

McLaren is king
on the South African veldt

LONG BEACH

America dreams up
a new angle on F 1

SEBRING

Racing to the tune of Dixie

N° 78 - APRIL 12 1984 • GREAT BRITAIN £ 2 - CANADA $ 4.50 - U.S.A. $ 4 - GERMANY DM 7.20

SHAKEN.

RIVAL 4 CYLINDER TWO LITRE ENGINE AT 2500 RPM.

A Martini may be improved by being shaken. But drivers seldom are.

So to smooth your way, BMW insist on using 6 cylinder engines even in their two litre cars.

Most other car companies settle on 4 or 5 cylinders, despite the laws of physics, which decree that engines with less than 6 cylinders can never be perfectly balanced.

You can see on the left the results of such imperfection.

And you can feel the difference yourself when you sit in the cars.

In the 4 cylinder car, you'd feel up to three times as many vibrations as in the BMW.

But in the BMW you'd feel even fewer vibrations than if you were sitting in an 8 cylinder car.

Hence the comment of 'Motor' that the 323i combines "rousing top end bite with smoothness unmatched this side of a V12."

Such a verdict reflects not only BMW's obedience to the laws of physics. But also that an individual counterweight is fitted for each cylinder (when others often have one balancing several cylinders).

The balance of BMW engines, happily, won't upset the balance in your bank.

For, with the help of fuel injection, the six cylinder engine uses no more petrol than many four cylinder engines of similar performance.

In the longer run, its engineering virtues are also reflected in the way the car holds its value.

For example, a 1981 six cylinder BMW 320 is now worth 25% more than a typical four cylinder rival of similar vintage.

The six cylinder BMW range starts at £9,180 for the 320i and £10,395 for the 520i.

In both cases, that's scarcely more than cars whose manufacturers have chosen to compromise on their engines.

And if they're prepared to compromise on the most important part of the car, where do you think those compromises will stop?

THE ULTIMATE DRIVING MACHINE

DOE FUEL CONSUMPTION FIGURES FOR THE BMW 320i FIVE SPEED MANUAL: URBAN: 23.7MPG (11.9L/100KM), 56MPH: 45.6MPG (6.2L/100KM), 75MPH: 34.9MPG (8.1L/100KM). THE BMW 320i COSTS £9,180. THE BMW 520i COSTS £10,395.
FOR A BMW 3, 5, 6 or 7 SERIES BROCHURE AND FULL SPECIFICATIONS, PLEASE WRITE TO: BMW INFORMATION SERVICE, PO BOX 46, HOUNSLOW, MIDDLESEX OR TELEPHONE 01-897 6665 (LITERATURE REQUESTS ONLY). FOR TAX FREE SALES: 56 PARK LANE, LONDON W1. TELEPHONE 01-629 9277.

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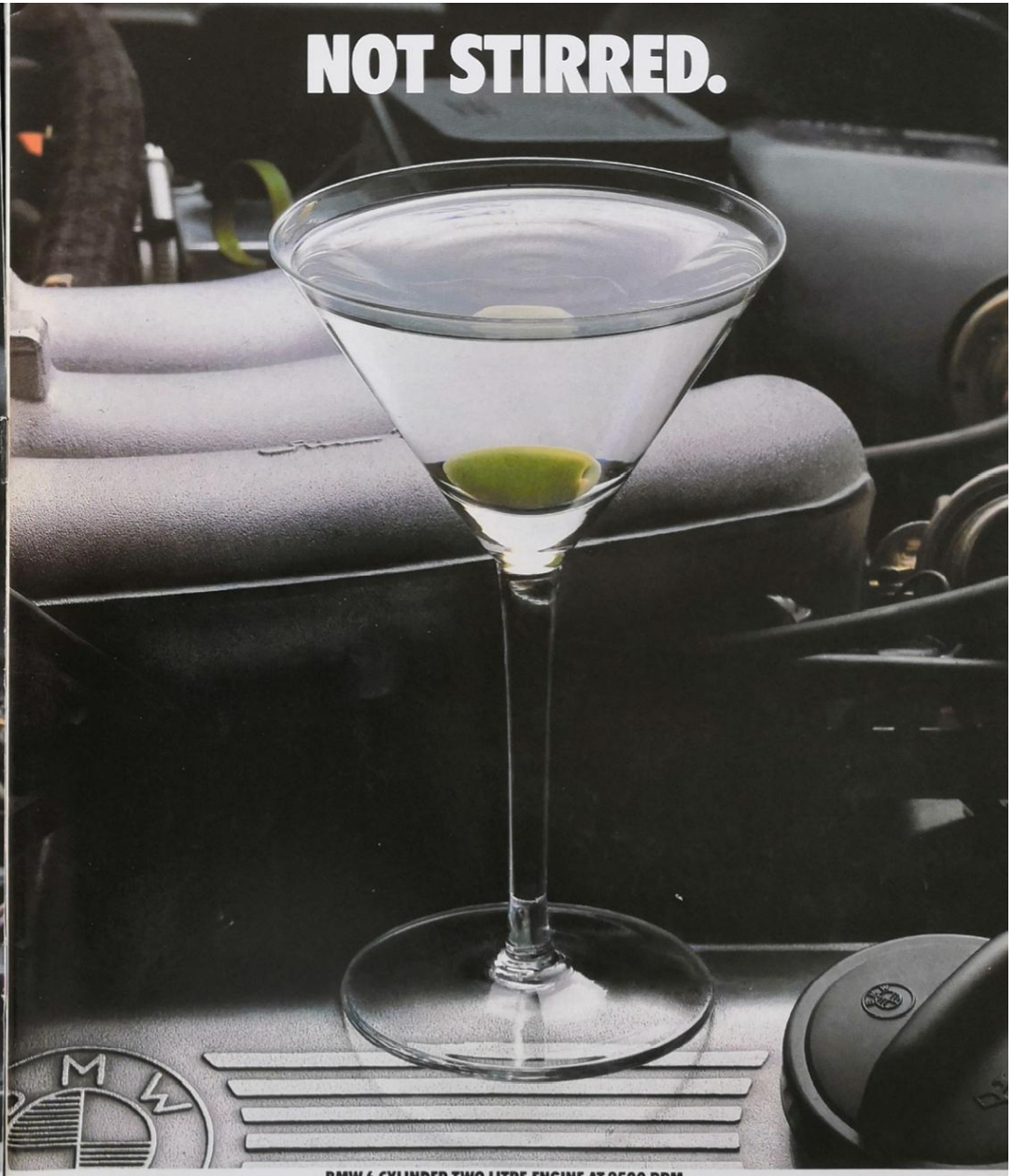

BMW 6 CYLINDER TWO LITRE ENGINE AT 2500 RPM.

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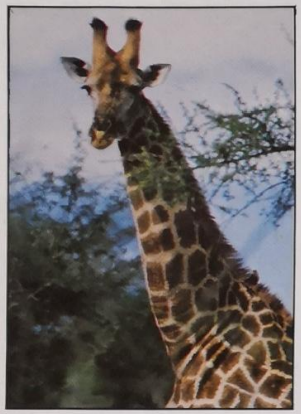

COVER PHOTOGRAPHS
DPPI - ASSET -

PAGE 6

GRAFFITI

From Rio to Jo'burg, Keith Botsford's path is a strange series of adventures — a heady beach party and cocky customs men are just a sample of what's waiting for you, so turn the page.

PAGE 8

PADDOCKS

Porsche says ''no'' to Le Mans, Honda scores in F2, and the Tour of Corsica is being threatened. Six pages highlight today's motor news, today.

PAGE 14

THIRD DEGREE

In spite of his easygoing look, he has been thrust into the limelight by high pressure politics in F1. Gabriele Cadringher, FISA's engineer talks about his organization's role in motorsport development, and gives us a candid look at the reasons behind the new-for-84 capacity ruling.

PAGE 16

SOUTH AFRICAN GRAND PRIX FOXING THE GEESE, AGAIN

Two Grands Prix down, and thirteen to go. Yet people are already asking if anyone can beat the McLaren-Tags. Lauda's performance at Kyalami was the kind that leaves the crowd gaping. And as for Prost's, starting from the pit-lane in the T-car, it was pretty good as well.

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REFLECTIONS OF AFRICA

PAGE 40

PICTURE POST CARD FROM KYALAMI

PAGE 52

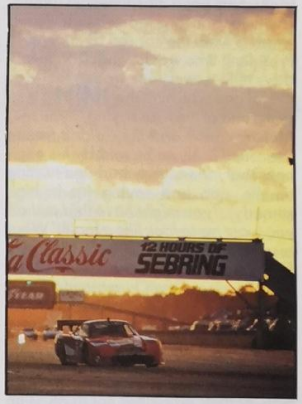
LONG BEACH CART THE METHANOL REVOLUTION

Formula Indianapolis, as it is still known to many, is capturing the hearts and minds of Europe. Perhaps we should consider the Italian-American Mario Andretti's victory at Long Beach as a portent? In any event, there was nothing disappointing about the opening round of the 1984 CART championship.

PAGE 80

SEBRING IMSA GOT THEM HEEBIE-JEEBIES TONIGHT

Another chapter in the legend of 12 Hours of Sebring. But this year's winners, Heyer, Narvaez and Johansson, are certainly heading for different destinies. Philosophy aside, luck did not smile on the favourites, and a dark horse ran away with the show.



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POST SCRIPTUM

Sometimes up, sometimes down — our mail is definitely a mixed bag. But it sure beats the telly!

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COMING UP IN GPI...

Graffiti

Keith Botsford

Ah, memories of rio Samba, the semi-pros on the (polluted) beaches, temperatures in the mid-nineties and the vast black Ford Landau of M. le President Balestre parked in the paddock, one rear wheel up, a marooned leviathan. The decal on one door read alcool: which is what the car ran by, not M. le President, who was having a trying few days telling everyone frozen fuel was illegal and watching them put it in: then at the end of the race saying, *"you see, McLaren won and they didn't freeze their fuel"* only to be told by his engineer that indeed they had and turning on the man and saying (as in high comedy) *"you might have told me! do you want me to look like a fool?"* What response to make?

Then a post-race evening in the blue neon interior of the Churrascaria Oasis where the waiters come by with whole amazons of meat on giant skewers and carve it onto your plate. Patrick Tambay is there with Jean Sage, who sends word the Renault has sprung a fuel leak. Patrick, who does not drink, is on his second deadly caipiringa (a concoction of lime, fruit and cachaca, the stupefying local brew that you can get in Bahia in 99 varieties) and looking fuddled. How does one explain the absurd? The fuel actually had, Sage says, a chemical reaction with the lining of the fuel bag. Question? If ordinary fuel didn't rot others' bags, what was in the fuel that did? I mean, honestly, I'm not being malicious. Everyone asks the same question. The day after the race, Patrick is in the Intercontinental pool, up to his waist in water and a slick of suntan oil, and he has a caipiringa in his hand: the day is steadying down, Keke Rosberg's brother-in-law is there with an American softball and two gloves, the tennis courts are jammed, the taxi drivers are letting the air out of tyres in cars near their ranks: inflation is so rapid (but not of tyres) taxis can't take competition from private cars.

Money is changed mysteriously in Rio, by one and all, at rates calculated on the futures market. My bank says it can only give me, by law, 30 percent of the cash telexed in dollars: it's the crisis, the teller explains kindly. But at the Bank of Brazil, you can get permission to extract more. You see M. A. on the 19th floor. Who sends you to the 12th. Which sends you to the 13th. Which says, no, Mr A is in charge of that, try the 19th. He is out to his almoço, which takes an hour or two. He comes back, he raises the ante to 60 percent in dollars. Back at the bank you take a few million cruzeiros as your change, in small dirty bills, like a ransom and dump them on your hotel where the switchboard lady, a mulatress, sprawls after midnight with pink pumps on her feet and the unplugged lines in disarray on her lap. There was the evening that Arrows, newly kitted-out with a

BALESTRE TO CADRINGHER 'YOU MIGHT HAVE TOLD ME! DO YOU WANT ME TO LOOK LIKE A FOOL?'

sponsor, proposed a celebration on a beach with the winning Samba school from manguiera, an evening which shows that the best intentions of PR men do not always work out in practice. In the morning we were handed a mimeo'd sheet which said to proceed south out of Rio along the coast and head towards a village called Grumari which was optimistically reported to be a mere 15 kilometres from the circuit at Jacarepagua. We duly set forth in a borrowed car (severe understeering, a faulty tyre and no sense of direction — we have learned from F1 drivers how to make excuses) and drove as indicated along the coastal road. Santos, some 600 kilometres away, was duly announced and sounded remote. Grumari was just about as remote. It has to be understood, to get the full flavour of this adventure, that driving along a Brazilian road after dark is like that surrealist conversation Sybille Bedford reports from her Mexican travels: *"and are you interested in death, count?... "Oh yes, very much."* Trucks hurtle towards you, some with lights, many without. Busses pull in from the side like cowboys picking out cattle. It is not a drive conducive to peace of mind. Nonetheless, despite signposts embedded in black holes and missing the turnoff several times, we did find Grumari. The village, as far as we could see in the dark, consisted of one wooden hut which said it sold fresh fish and a long, deserted stretch of beach. No celebrations were to be seen, and no matter how often we turned our engine off and strained to hear the sounds of a Samba band, all was silence and desolation. She said, let's try to the left, where, in the dark and remote distance, we could see the lights of Rio burning vaguely. We did five kilometres that way and nothing: two campers, one tent. *"But they said there would be Skoal Bandit signs to show the way,"* said I. (Sponsors take note: it was Barclay, but there weren't any signs for Barclay either. Any sign we would have followed.) We then found the fresh fish hut again and had a merry hunt for the purported signs. Signs (or portents) there were none. Said she: *"Well, it must be to the right. It's clearly not to the left. Are you sure this is Grumari?" "Don't be silly, of course it's Grumari."*

We saw the signs coming in.

THERE WAS A STRANGE, SWEET SMELL IN THE AIR. PERHAPS OTHER GUESTS HAD GOT LOST?

So we went up a headland and down a headland and up another and down another until we came to a cove where a small charcoal brazier on the shore let off a faint glow and five or six dark figures stood around in the gnats. It didn't look like a sponsor do, but it was the first sign we'd had of life, so we stopped the car and started down to the beach. There was a strange, sweet smell in the air (from cigarettes wrapped in yellow corn paper) and we drifted up to the edge of the group, thinking perhaps that Arrows had been marooned, that other guests had got lost, that this was the tail-end of a departed party. They looked faintly familiar, these figures. That is, they wore gear like F1 hangers-on do: jackets, jeans, etc. They were certainly hospitable. But they smoked, they sniffed. *"I don't think this can be the party,"* said she. *"Good lord, no,"* answered I shocked. We never did find the party.

From Rio to Johannesburg is a long flight with a six-hour time difference, which meant that when Varig (a splendidly Brazilian airline - smoke where you want, two meals, wine free and no pushy American stewardesses telling you to wake up, it's time to have your plastic sandwich) uncorked us and Patrese, de Angelis and Rosberg, plus charming wives, it was the middle of the night but drinks time in Rio. It having been my birthday and Keke having sent a bottle of Moet to me, we were a trifle the worse for wear. Still, ever-diligent, we stood at the Hertz desk while Elio reminisced that when he had first come to Jo'burg, Hertz wouldn't lend him a car as he was too young.

We watched Keke trying to avoid a local photographer who wanted to pop a flash gun deep into his suntan. The same Keke the next morning had a hallucinatory experience with a local reporter: *"Hello, I'm from the Star and I'm supposed to be doing a story on Grand Prix drivers. Are you a Grand Prix driver?"* Keke: grunt. Looks at his watch. Nine A.M. Sleepless night. No answer. Reporter: *"Is this your girl friend?"* She points at Mme Rosberg. Keke: NO. *"OH. Whose girl friend is she?"*

The airport reminds me of the time when Master James Hunt was caught in flagrante: bringing in sinful copies of Playboy.

WE HAVE LEARNED FROM F1 DRIVERS HOW TO MAKE EXCUSES

Hunt made a protest and everyone's bag was opened. The South African customs presumably passed an erotic evening. This sort of strange puritanism was brought home to me the next night when we went to see Gorky Park, in which hero and heroine only just got into bed before the censor went snip, snip. And when someone, said, *"Russians? Russians drink, they swear, they..."* I swear I heard the scissors after swear. A puritan society is a slow society. Still at the airport, with huge lines drawn up at immigration, the only empty line belonged to South African citizens, few of whom seem to holiday in Rio. It was promptly filled with Pirelli

THE SOUTH AFRICAN CUSTOMS PRESUMABLY PASSED AN EROTIC EVENING

mechanics, which shows Italian ingenuity, and since none of them spoke either English or Afrikaans , one supposes they got through on sheer charm. But to explain South Africa to you, the veldt, the manicured lawns, the huge shopping centres, the flat accents and dumb cops, I can only relate three images. Upstairs in the largest of these huge commercial malls, at the top of an escalator, a hundred or more baby chicks and a disembodied Peter Rabbit dangling in mid air with a solemn black nightwatchman to keep them company and make sure they weren't eaten. My colleague Xavier Chimits in a hurry to buy a bathing suit ducking into said centre and being arrested (it's true he hadn't shaved and looked seedy and suspicious) for upsetting decorum and probably for thieving chicks. And Nigel Mansell out to play golf (unfairly demanding five rands for every birdie: he who plays off scratch) and coming back to his locked car to find his JPS jumper stolen: and a gold chain he left wrapped up in it. The caddies gathered around him as he discovered his loss said, *"Don't worry master, we know black mind here. Tonight it will be cold, him come out in jumper. We catch him.* Next day, there it was. *"Found it on the way home, master. It lie on side of road."* □

WEIGHTY SUBJECT

How heavy is a Formula 1 car? You don't necessarily get the true answer to this fascinating question by weighing a competitor's vehicle during official qualifying or after a race, which is the procedure routinely adopted at Grands Prix by FISA. The reason for this anomaly is that the "dry" weight of any car can be artificially increased by ballast in the form of liquid. This procedure was adopted early in 1982 by a majority of the teams, most of whom had cars that weighed appreciably less than the weight limit of 580 kilos (since reduced to 540 kilos). But FISA stepped in with a retroactive decision in April 1982 that eliminated Piquet and Rosberg from their 1-2 finishing positions in the Brazilian GP and in past caused the boycott of the 1982 San Marino GP by scandalised British and French teams.

FISA's ruling forbade the addition of ballast after the end of a race, which was an effective step at the time (remember the notorious gallons of water for fictitious "brake cooling" systems?). But 1982 also saw the reintroduction of routine pit stops for refuelling and tyres. And pit stops were also seen by some astute teams as an opportunity to ballast their super-light cars during a Grand Prix.

At the Brazilian GP, Lotus manager Peter Warr was happy to inform unsuspecting journalists that the two Brabham-BMW entries were to be ballasted when they stopped for tyres by using unusually heavy rear wheels. This was false information, although it is safe to assume from Warr's smug attitude that Lotus has some heavy wheels for future use.

However, in the race, Lotus adopted the more blatant procedure of topping up the water injection system of Mansell's car with the astonishing quantity of around 25 litres of water, equivalent to 25 kilos of weight.

Significantly, after the Brazilian race one of the two teams still using Cosworth engines (Arrows) entered a protest against the other (Tyrrell). The protest alleged that Brundle's 5th-place Tyrrell took on not only four fresh tyres and water during its stop, but may also have taken on fuel. Late on race evening the Brazilian officials, having closely inspected the Tyrrell, rejected the protest.

Ken Tyrrell has now satisfied GPI that his crew did, indeed, add just water to the car when it stopped. But in view of the crudeness of his "water injection" system (which is only a simple spray nozzle in the airbox) one can only imagine the sort of sophisticated devices which wealthier teams will now be tempted to install on their cars. Such systems would take advantage of F1 cars ever-decreasing "dry" weight in the early stages of races, before they make their stops for fresh tyres... and other substances.

ZAKSPEED IN F1?

Reports reach us from Germany that Zakspeed, one of Europe's most successful producers of competition touring cars, is about to launch a turbocharged F1 project.

No one has more experience of turbocharging than Erich Zakowski, the firm's founder, who has prepared everything from simple Group 1 Escorts to the spectacular turbocharged Capris which have won many German titles in past years. Zakspeed has also been consulted in the preparation of the factory Ford Mustangs which race in the GTP division of the American IMSA series.

Rumours of a possible Zakspeed involvement in F1 were first raised almost two years ago, when Ken Tyrrell was reported to have opened negotiations for a full 1.5-litre version of the 1,4-litre four-cylinder Ford-based engine which Zakspeed was then using in "silhouette" Ford Capris. We understand that the larger engine has a serious overheating problem which may now be curable by the adoption of the modified cylinder head used on the latest 2.1-litre IMSA Mustangs.

Designer of the all-German Zakspeed F1 car is in the hands of Paul Brown, an expatriate Briton who formerly worked for Chevron and March.

No details have been officially released of the F1 Zakspeed, but our German sources suggest that a possible driver is former Le Mans winner Klaus Ludwig, who steered Zakspeed Capris to many victories in touring car racing.

Locked out regardless of their world famous hospitality, it is not being unkind to South Africans to suggest that their attitude to rules and regulations becomes uncompromisingly strict whenever they are engaged in an official capacity. Thus it was on the morning of first practice at Kyalami. The proceedings got under way no less than 40 minutes late, due (according to an official communique) to there being "insufficient marshals" on the circuit.

It was only later that the true story emerged. The Marshals were waiting, frustrated, at the main gate while someone attempted to persuade the recalcitrant gatekeeper that the official Marshals' credentials gave them free access to the circuit where they were due to have started the day's work.

F1 TEAMS CONSIDER DONOHUE DECISION

Far away from sunny Kyalami last week, in the eastern US state of Rhode Island, a legal decision was passed down which could eventually have worldwide implications for the future of motorsport, its competitors and its suppliers.

Having listened to the legal arguments in the wrongful death suit brought against several parties by the estate of the late Mark Donohue (see *Paddocks*, GPI 77) a six-man jury awarded damages and interest amounting to almost 19 million dollars to the Donohue side.

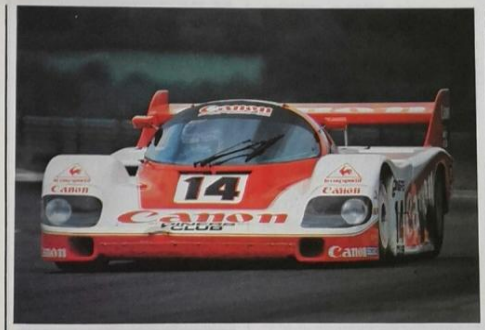
One of the two major defendants, Goodyear, immediately announced that lawyers had been instructed to file a motion for a new trial. The company has also issued a reasuring statement to the effect that it will "continue to produce a reliable, dependable product to serve drivers in this demanding and sometimes dangerous sport." Goodyear intends to fight the Rhode Island decision to the state's Supreme Court if necessary.

As mentioned in the GPI Editorial elsewhere in these pages, the Donohue case is still sub judice and cannot therefore be debated. It should be mentioned, however, that three years ago a court in California threw out Clay Regazzoni's suit for damages against the Long Beach GP Corporation following the 1980 accident there in which he was paralysed.

It is only right, of course, for negligence to be penalised, whether it be on the part of a manufacturer, component supplier or circuit owner. But there are special circumstances which must apply to racing for the very reason that it is a competitive activity which demands all those involved to take risks.

These circumstances are recognised in the waivers which must be signed by entrants, mechanics and drivers (not to mention journalists) before a race meeting even starts. Such a waiver was signed by Mark Donohue when he made his return to racing in 1975 after a short retirement. Furthermore, he recognised the implications of his decision in a conversation with a journalist (at which the then Mrs Donohue was present) in a wide-ranging discussion of the subject over the dinner table in Barcelona that year.

The court in Rhode Island evidently made its decision regardless of the attitude of Donohue, who was not only a fine, intelligent racing driver but also something of sports philosopher. the jury was not asked to consider the future of motorsport, which (under US law at least) was irrelevant to the facts of the case. Nevertheless, until a final verdict has been handed down, in a process that could take another ten years, or an out-of-court settlement has been reached, motorsport in the USA must consider itself to be under a cloud. As Williams designer Patrick Head told us in Kyalami, "Frank and I will be going back to England to decide if we will ever race in America again". At the very least, as Renault's Jean Sage has suggested, they will join every other F1 team in taking a long and extra-careful fresh look at their insurance policies.



RIO FLASHBACK

Working to the tight deadlines which we frequently impose upon ourselves at GPI, it is not always possible for us to bring readers the full reasons for the incidents, mechanical or otherwise, which befall the competitors in GP races.

In the Brazilian GP, for example, it was not until the Honda mechanics had dismantled the engine of Jacques Laffite's Williams that they discovered his loss of boost was a result of turbo (not electronic) failure. Similarly, the cause of Nelson Piquet's massive engine oil leak (not for the first time, alas) was attributable to BMW rather than to Brabham: a bolt had come loose and dropped out of the lubrication system.

We also mis-reported the exact cause of the electrical failure in Niki Lauda's Tag/Porsche turbo at Rio. We have since learned that the wire that broke was in the plug that connects the electrical system to the battery, not in the fuel injection.

Race reporters are not always well served by their sources of information, of course. Our favourite "reason for retirement" is the one laconically given to reporters by three-times world champion Jack Brabham at a race in Australia. "Fuel starvation" was Jack's official quote: it was only discovered much later by the reporter that a connecting rod had ventilated the cylinder block... and knocked off the carburettor as it departed.

CANON'S "ANGLICISED" PORSCHE 956

In a bid to overcome the engine advantage which the works Rothmans-Porsche Group C cars enjoy over the private Porsche entries, British entrant Richard Lloyd is making some Canon-sponsored Porsche 956 in readiness for the first round of the World Endurance Championship (WEC) at Monza on Easter Monday.

Lloyd has engaged British engineer Nigel Stroud (formerly associated with the Hesketh, Lotus and ATS teams in F1) to redesign the monocoque chassis of his car. It is not unknown for private Porsche teams to make modifications to their cars' an example is the aerodynamic "tweak" which the Fitzpatrick Team adopted on the Warwick/Fitzpatrick 956 at Brands Hatch last year), but this is the first time that a customer has dared to "improve" a 956.

Managed by the celebrated endurance racing expert Keith Greene, the Canon drivers this year will be Dr Jonathan Palmer and Dutchman Jan Lammers. Some of Palmer's F1 commitments clash with the Canon programme, but at present it looks as though he will definitely be racing at Le Mans. *"I know that the Le Mans date clashes with the canadian GP"*, says the doctor, *"but I shall be driving the Canon Porsche there unless I have been lucky enough to have scored F1 championship points before then with my Ram-Hart"*.

ERRATA

A few errors occurred in the last issue for which we apologize to our readers. In the editorial, the text should read: "Mr. Ecclestone's probity is unquestioned within F1". In the interview with Jean Sage, a "not" was dropped. The text should read: "I do not find it hard to imagine myself elsewhere." On p.99, the No. 4 Tyrrell is clearly being driven by Alboreto, not Cheever, and the attendance in Rio announced officially as 29,600 was generally considere to be 40,800, not 150,000.

HIGH RISK

The law in America has always been a little bit special: part of he frontier spirit of economic laisser faire. The country breeds lawyers faster than mayflies and lawyers breed litigation.

Malpractice and negligence are the growth fields in this unsavoury trade and the implications of last week's judgment in favour of the ex-Mrs Mark Donohue in Providence, Rhode Island and against Goodyear and Roger Penske has profound implications. (See paddocks) it is not going too far to say that it threatens not just F1 but all motorsport.

True, it was a decision in America: true, it is being appealed: true the tyre manufacturers who are directly affected are putting a brave face on it. The fact is that, as a precedent, it menaces the sport. It means that, at least in America (similar suits have been dismissed in most European countries), constructors, manufacturers, engineers, circuit owners, medical personnel, marshals — the whole gamut of the sport — are liable to suits for negligence in the event of accidents during a race meeting or during testing. The Donohue case being under appeal, it is technically subjudice, and it would therefore be improper for us to comment on the merits of the case. Nontheless, the principal involved is of such importance that some clarification is necessary. Negligence as a tort in law is a defence of the public against unscrupulous manufacture. We are certainly not against the use of the law to protect the public. We are strongly against abuse of the law in a capricious and ill-founded way.

Motorsport , with its literally hundreds of components, all of them raced in conditions of high stress, is particularly vulnerable. But the sport has two main lines of defence against negligence: one is the particularly high level of care observed by all participants in the sport to make sure that their cars are safe (a safety which is overseen by a responsible international body): another is that all those who partake in the sport are aware of the inherent risk and accept it freely, both in the contracts they sign and by the way they race. The first defence says that it would be hard to find another area of technology in which safety is so rigorously pursued: the second says that no one who races or attends a race is not aware of the risk of the sport and participates (or attends) in full knowledge of cause.

A railway level-crossing is posted, if unmanned. Where traffic warrants, it is protected by a barrier. In motorsport, racing is not only posted as dangerous : it is protected by the ingenuity of all concerned. In what other aspect of the motoring industry is so much made of safety? Indeed, would to God that road cars were as safe as F1 cars.

But now the risk to the sport is sign-posted. All will be wary of racing in America. Insurance bills will quadruple. Some may feel the price of racing in America has gone too high. Legally, the question is relatively simple (as European courts have repeatedly ruled): if a man knowingly does something dangerous.

(In this case, extrordinary care) was taken by manufacturers and engineers to assure that person's safety, where in lies the negligence?

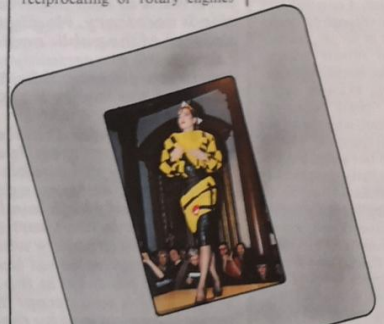
Citroën Visa "1000 Pistes"

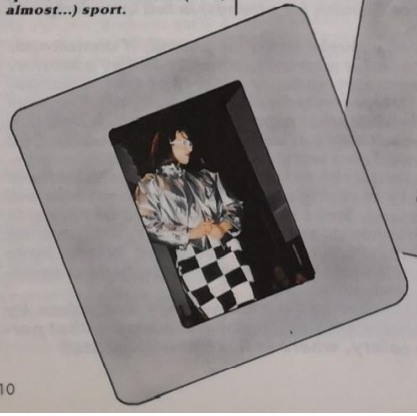
VISAS IN KENYA

The big day is coming up fast for the three "Mille Pistes" Citroën Visas. Nominally 4wd vehicles, the test of fire will be the treacherous ruts of the Safari Rally, starting April 19. Guy Verrier's team left on reconnaissance toward the end of March. It's still the dry season, but the rains should begin soon, transforming the route into a gigantic bog. Chomat/Breton, Wambergue/Smith, and Rio/Vieu can hardly wait, having already been over the terrain in three test cars. Rally assistance will be provided by ten mechanics — a modest showing compared with Audi and Lancia. Citroën's objective: to finish among the top five.

INSIDE IMSA'S RULE BOOK

Some people who fancy nuts and bolts have asked us what the different classes mean in the GTP/GTX category of IMSA. Here's the answer. The 700kg class: 3-litre reciprocating or rotary engines with two valves per cylinder; 2-litre reciprocating engines with four valves per cylinder. The 750kg class: 4-litre reciprocating or rotary engines with two valves per cylinder; 3-litre reciprocating or rotary engines with four valves per cylinder; 2-litre turbocharged reciprocating or rotary engines with two valves per cylinder. The 850kg class: 5-litre reciprocating or rotary engines with two valves per cylinder; 4-litre reciprocating engines with four valves per cylinder; 2860cc reciprocating or rotary turbocharged engines with two valves per cylinder; 1.8-litre turbocharged reciprocating engines with four valves per cylinder. The 900kg class: 6-litre reciprocating or rotary engines with two valves per cylinder; 4-litre reciprocating engines with four valves per cylinder; 3570cc turbocharged reciprocating or rotary engines with two valves per cylinder; 2140cc turbocharged reciprocating engines with four valves per cylinder. Some examples: Lola T616-Mazda in the 700kg class (1308cc Mazda 13B rotary engine); Momo AR3-Cosworth in the 750kg class (3-litre Cosworth engine); March 83G-Chevrolet in the 850kg class (5-litre V8 engine); Ford Mustang GTP in the 900kg class (2.1-litre turbo engine with four valves per cylinder).



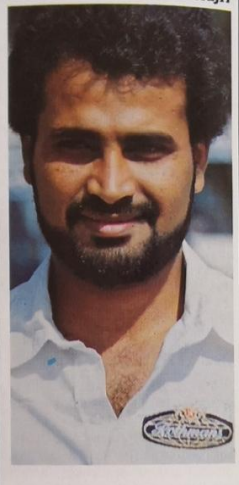


Is this the new "in" look on the Formula 1 scene? Hard to say. Whether it catches on or not, designer Charles Abecassis has created a startling style for those ladies who undoubtedly provide an extra touch of sparkle to our favourite (well, almost...) sport.

AL HAJRI AT THE ACROPOLIS

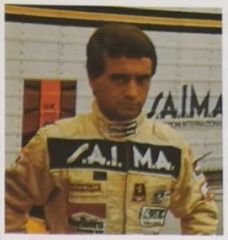
His 2nd place finish at the Bahrain Rally means Saeed Al Hajri (Rothmans-Porsche 911) can add to his Middle East Champion title the mention 1983-1984 Gulf Champion as well. His main rival Abdullah Omar (Toyota) had too many problems to really be a contender for the crown. All the same, it was the Brit, Russell Brookes (Talbot Lotus) who won Bahrain. Al Hajri, hailing from Qatar, will be seen at the Acropolis Rally, beginning of June, again driving a Rothmans-Porsche.

Saeed Al Hajri



DRIVERS' WEIGHTS

Weighing in before the Brazilian Grand Prix, in full kit — helmet, driving togs, underclothes, shoes and gloves — the drivers' weights, in ascending order, were the following: Prost (64.0 kg); Lauda (64.4 kg); Laffite (64.6 kg); Senna (67.0 kg); Arnoux (67.4 kg); Rosberg (67.8 kg); Fabi (68.2 kg); Baldi (69.8 kg); Surer (70.0 kg); Piquet (70.4 kg); Hesnault (71.0 kg); Brundle (71.6 kg); Alboreto (72.0 kg); Alliot (72.6 kg); Bellof (72.8 kg); Cecotto (72.8 kg); de Cesaris (74.2 kg); Winkelhock (74.2 kg); Palmer (75.0 kg); Boutsen (75.2 kg); Mansell (77.6 kg); de Angelis (79.0 kg); Patrese (79.0 kg); Warwick (79.2 kg); Cheever (79.2 kg); Tambay (79.4 kg); Ghinzani (79.8 kg); These weights were used in computing the cars' weights in spot checks that were carried out during the timed practice sessions. The single seaters were weighed with their drivers as they returned to the pits. The driver's weight was then substracted from the car's.



Pierluigi Martini

MARTINI WITH LANCIA

Pierluigi Martini, the European F3 Champion, didn't get the F1 drive he so much wanted in 1984 — the second Brabham spot, for example. But it's still possible he might join the Lancia team for the Group C World Championship. It won't be a works car, but a place with Mirabella.

A 4WD DELTA FOR LANCIA

The Italian weekly magazine "Rambo" has just published a drawing of what they suppose will be the future four-wheel-drive Lancia in next year's World Rally Championship. This is not a modified "Rally 037", as one might have imagined, but a competition version of the existing 4wd Delta. Two hundred of the cars have to be homologated before the new Lancia is allowed to race. Its suspension is that of the current 037. Its twincam 1.7-litre engine (positioned longitudinally) would be fitted with a dual surpercharging system, including the Comprex of the current 037 and a classic turbo. With its new engine capacity, the 4wd Lancia-Delta may weigh no more than 890 kg.

Ralt-Honda F2

HONDA STILL IN F2

The first round of the European Formula 2 Championship ended with a 1-2 victory for Ralt-Honda: Mike Thackwell and Roberto Moreno, in front of the Martini-BWM of Michel Ferté. Thackwell, as well as Moreno, both have a brief tour of F1 to their credit. Indeed, the door may be open for 1985 if the rest of their season proves as brilliant.

This is the new Long Beach image. A glass hotel, a mini-lake, gondolas, the Shoreline Village, a marina and the ever present good old Queen Mary. Unfortunately Formula 1 did not appreciate the squeaky-clean look.

PPG INDY CAR WORLD SERIES

ALL ABOUT CART

Engines. Thirty four out of the 39 single seaters at Long Beach are equipped with V8 Cosworth DFXs with either a single Ihi or Holset (for the official Penskes) turbo. This 161.703 CID (2600cc) engine block is derived from the normally-aspirated Cosworth DFVs which won 155 Grands Prix. The block itself on the eve of the Long Beach race had won 93, the

first victory going back to the 500 miles of Pocono in 1976. A CART DFX is rebuilt every 500 miles (800km) as opposed to 500km (300 miles) for the Formula 1 DFVs. The other engine categories are the turbo "stock blocks" with 209.3 CID(3430cc)lateral cam shafts and the normally aspirated "stock blocks" with 356.687 CID (5878cc) lateral cam shafts. Only the latter of these two categories is presented) at Long Beach, in the V8 Chevrolet or Pontiacs, equipping a March, a Longhorn and three Eagles.

Boost Pressure. On the Cosworth DFX it is limited to 48 inches of mercury, which corresponds to approximately 600g/cm². A block cylinder enclosing the pop off valve is given to the CART by each competitor at the beginning of the season. CART then assumes the responsibility of setting the tension of the spring and of checking there has been no frauding. The pop off valves are then given back to the competitors at random just before the practise sessions and the races, and taken back as soon as they are over.

Weight. 1,500 pounds (681.8kg) for dry single seater turbos. 1,425 pounds (647.7kg) for normally aspirated single seaters.

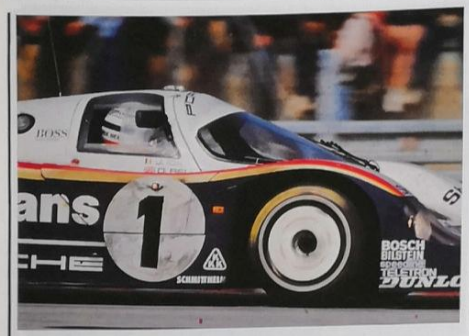
Fuel. The fuel tank capacity is restricted to 40 US gallons (152 litres) and the authorized methanol consumption during the race is set at 1.8 miles per US gallon (2.9km per 3.8 litres, or 131.1 litres for 100km).

Tyres. Hard diagonal Goodyears, identical for everyone. The American manufacturer should switch to radials within a few months, which have already undergone private testing. They will be furnished to all drivers simultaneously.

Points. 20, 16, 14, 12, 10, 8, 6, 4, 3, 2, 1 for the first 12 of each race, plus 1 point for the pole position and 1 point for the driver having led the race for the most amount of laps. Thus, at Long Beach, Mario Andretti obtained 22 points.

Calender. Ist April, Long Beach (California). 15th April, Phoenix (Arizona). 27th May, Indianapo-

lis (Indiana). 17th June, Portland (Oregon). Ist July, Meadowlands (New Jersey). 8th July, Cleveland (Ohio). 22nd July, Michigan (Michigan). 5th August, Road America-Elkhart Lake (Wisconsin). 19th August, Pocono (Pennsylvania). 2nd September, Mid Ohio (Ohio). 9th September, Sanair (Quebec). 23rd September, Michigan (Michigan). 14th October, Phoenix (Arizona). 21st October, Laguna Seca (California). 11th November, Caesars Palace-Las Vegas (Nevada).



Porsche 956

LE MANS WITHOUT PORSCHE

The recent decisions made by FISA's Executive Committee in Estoril, Portugal, were not appreciated by Porsche. According to the Germans, FISA did not respect the regulations-stability rule when they authorised cars competing in the IMSA Championship to participate in 24 Hours of Le Mans. Consequently, they have decided not to make any official entry in the famous Le Mans race. This symbolic decision should, however, not trouble the race organisers. It is entirely possible that, in addition to the many private teams entering, a number of 956 s similar to the works model, may be sponsored by Rothmans, as was the case with the Porsche 911s in the Paris-Dakar rally. It's also rumoured that they will be driven by the works men Ickx, Bell, etc. In any event, the organisers of the event, L'Automobile Club de l'Ouest (ACO), doesn't seem unduly perturbed. The race will surely be competitive.

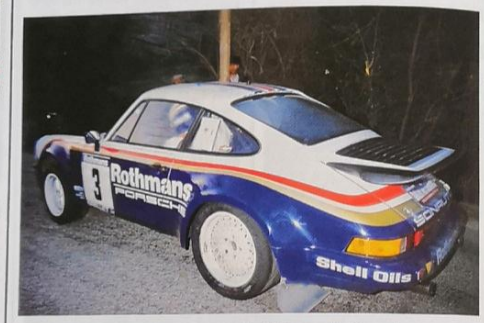
Bernard Asset is hooked on Formula 1; even in his new studio single seaters creep into his every effort. You might call it an obsession...

VW AND F1

Volkswagon Motorsport, who are already preparing a 4wd entrant for the World Rally Championship in Group A, have designed a Formula 1 engine as well, in collaboration with Engine Development. However, a spokesperson for the German firm pointed out that construction of the engine was not on the program for the short term.

RAC IN WINDERMERE

After Bath, Chester, York, and Birmingham, it is now possible that quaint little Windermere, in the Lake District of Northern England, may be the jumping-off point for the 1986 Lombard RAC Rally. But it's not the only town in the running for this profitable, although demanding, honour.



Toivonen's Porsche

FLASH FROM EUROPE

The European Rally Championship has been dominated by the Italians for several years now. This year, it looks like Carlo Capone will take the title, already captured by Vudafieri, "Tony", and Biason over the last three seasons. Indeed, he's well in the lead after nine rounds and two victories, at Boucles de Spa and Costa Blanca, driving a Lancia Rally "Tre Gazelle". We've also been watching Henri Toivonen at the wheel of his Rothmans-Porsche. But the car still has too many mechanical bugs to pose a real threat to Capone in the championship. Nevertheless, Henri finished 3rd in the Garrigues Rally, only 39 seconds behind the winner, Andruet in a Chardonnet-Lancia. Other winners worth mentioning are: Cinotto (Audi) at Costa Brava, Lampi (Audi) at the Hanki Rally, Demuth (Audi) at the Sachs Rally, and "Tony" (Lancia) at the Targa Florio event.

AUSTRALIAN GRAND PRIX IN 1985

Derek Ongaro, head of FISA's track-safety committee, returned from Australia somewhat hopeful of seeing a Formula 1 Grand Prix run there next March. The Sandown Park track has the best chance of being a venue at present, but there are also other possibles, such as Adelaide, Sydney and Surfer's Paradise.

QUALITY FIELD FOR ALPINE RALLY

The 27th edition of the Alpine Rally, formerly known as the Jean-Behra Alpine Criterion, is to be this weekend's highlight in the backcountry of Nice. In fact, the event counts as part of the European Championship (coef. 3) and will attract a number of top drivers such as Toivonen (Porsche), Tognana (Lancia), Wiedner, Darniche, Fréquelin, Bequin, Ragnotti, and Saby — a quality field. The rally starts at Nice (Promenade des Anglais), Saturday April 14 at 07:00, with the arrival at Grasse on Sunday, April 15 at 10:00. For information contact Claude Julian (93) 39.75.55.

SAFARI STARTING LINE-UP

The starting order for participants in the upcoming Safari Rally (April 19-23) is now known. Drawing lots, Hannu Mikkola will be number 1 on the road. The first Lancia (Alen) will be wearing number 7, said to be lucky. The other Lancia, driven to victory by Vic Preston at the Rift Rally in Kenya a few weeks ago, will start 17th. The rundown: 1. Mikkola (Audi); 2. Mehta (Nissan); 3. Mouton (Audi); 4. Eklund (Toyota); 5. Waldegaard (Toyota); 6. Fréquelin (Opel); 7. Alen (Lancia); 8. Blomqvist (Audi); 9. Salonen (Nissan); 10. Aaltonen (Opel); 11. Kirkland (Nissan); 12. Wittman (Audi); 14. Chomat (Citroën); 15. Wurz (Audi); 16. Hellier (Peugeot); 17. Preston (Lancia); 18. Munari (Toyota); 19. Wambergue (Citroën); 20. Shah (Nissan).

Safari Rally

TOUR DE FRANCE OR TOUR DE CORSE

According to the French motorsport magazine "Echappement", FISA/FFSA president Jean-Marie Balestre has decided to "scrap the Corsican Rally", the only French event in the World Rally Championship (the Monte Carlo Rally officially belongs to the principality). The president's aim is to replace the Corsican event by a Tour de France for automobiles, an idea supported by the French sports daily "l'Equipe". As for its organization, various French automobile clubs would lend a hand. Jean-Marie Balestre's detractors are of the opinion that his plan is all in keeping with his electoral bid for a new term as president of FFSA. He is running against Guy Verrier, competition director at Citroen. It's been long rumoured that there'll be some breakdown in The World Rally Championship. The problem is that it covers the same terrain as the Monte Carlo Rally. Watch for further developments.

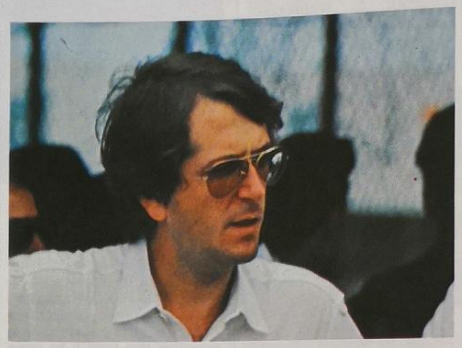
Tour of Corsica

JARIER MOVES TO KREMER

Jean-Pierre Jarier, one of the outcasts of Formula 1 racing (see GPI no. 77) is to drive again in the World Endurance Championship. Kenwood and Sonauto are among the sponsors of the German team and their entries include a 956 from last year as well as an '84 model in the Silverstone 1000km. Jarier will be there, as well as in 24 Hours of Le Mans. The Andretti family (Mario and son Mike), and Emerson Fittipaldi, are said to be joining the lead-footed Kremer team.

Jean-Pierre Jarier

GABRIELE CADRINGHER



THIS ITALIAN, 35 YEARS OLD, A YOUTHFUL SPRING IN HIS STEP, HAS BEEN THE OFFICIAL ENGINEER OF THE FEDERATION INTERNATIONALE DU SPORT AUTOMOBILE (FISA) SINCE 1982. A GRADUATE OF THE TURIN POLYTECHNIC SCHOOL, HOLDER OF A DEGREE IN AERONAUTICS, HIS JOB IS TO WRITE FISA'S TECHNICAL RULES AND TO VERIFY THEY ARE RESPECTED IN THE RACES. TO CHECK A FORMULA 1 CAR'S COMPLIANCE IS NO EASY TASK, ESPECIALLY AS REGARDS THE NEW-FOR-84 220-LITRE CAPACITY LIMIT ON FUEL TANKS. NONETHELESS, HE GOES ABOUT HIS WORK CALMLY AND COURTEOUSLY — WHICH HAS EARNED HIM THE UNANIMOUS RESPECT OF THE TEAMS PLACED UNDER HIS TUTELAGE.

Interview by Didier Braillon

It was feared before the Brazilian Grand Prix that you would not be seen very often on the Grand Prix circuits. What made you decide otherwise?
I am FISA's engineer, but not just for F1. The position that Jean-Marie Balestre established at the end of 1981 is one of a technical overseer for the three world championships. The idea had been put forward to divide my time between the Grands Prix, rallies and endurance races. This was in order to increase FISA's control over the latter two disciplines. But the F1 constructors, who often criticised me during my first year, have now accepted me. Indeed, some like Frank Williams, have even insisted that I cover the whole season. So the idea was out in the open: be present for the entire season. The rest was not long in coming.

All the same, it would seem you have been obliged to delegate your authority. When you arrived in Rio, it was planned that the local race officials would do the actual checking in your stead. It appeared you could watch, but not touch.
My role is to write the regulations, to consult with the local authorities, and to see that verifications are correctly carried out. Last January, there was a workshop for F1 technical inspectors. All of the organising committees, except two, were represented by a senior official. Everything was explained to them, so as we might confidently delegate our authority. Even before, some countries had been getting along on their own, but it's a difficult job. Their men only actually see the cars once a year.

People have been talking about cheating in F1 for several seasons now. Is this something hard to put up with? Or do you get a thrill out of catching the cheats?
It's true that the press talks a lot about cheating. Especially those who get away with it. But this concept of cheating is misleading to begin with. As soon as we publish a rule, the constructors use any means available to deal with it. That includes brains, money, and scientific instruments. They're working to take maximum advantage of the situation. FISA is alone against hundreds of engineers, all looking to interpret the rulings in their favour.

For simplicity's sake, let's keep the term "cheating". Is it true that the British members of FOCA are more inclined to stretch the rules than, say, the major constructors?
I would prefer not to answer that question. For another thing, it's false to say that any group tries to cheat more than another.

Why does a person become FISA's engineer? Is it something one does deliberately, or is it a second choice? In other words, did you unsuccessfully try to become an engineer for one of the teams?
I come from a family traditionally involved in aviation. I have an uncle who is a general in the air force. There exists a certain correspondence between this specialty and the automotive industry. I worked five years on projects for the air force — all the while, serving as a national technical inspector for CSAI, the Italian motorsport federation. I met Jean-Marie Balestre at the 1981 Acropolis Rally, at a time when I disqualified the winning Audis. They had non-regulation air intakes, mounted in front. President Balestre later had me work as a consultant in the inspection of the Lotus 88, which was also declared illegal. From then on, things fell into place.

I want to come back to my original question. Would you like to be an engineer on a team?
If anyone was to make me an offer, I would evaluate it on a professional and personal level. A lot of things would have to be taken into consideration. I love my work, I feel comfortable with FISA, but it's sure that I wouldn't say no straight off. Without thinking about the pros and cons.

If you were to design an F1 single seater, which one would it be most similar to?
The Brabham. Without a shadow of a doubt. I find Gordon Murray the most accomplished engineer of our times. He manages to keep coming up with new concepts, which are immediately copied by everyone else. To be an innovator takes a lot of conviction.

Limitation of the fuel tank capacity to 220 litres, is this a good or a poor decision?
It's a moderately good idea. The purpose is to force a reduction in engine power by requiring that they consume less fuel. An alternative solution, which in my opinion would have been better in technical terms, is to reduce the engine capacity.

What do you think the ideal set of regulations for Formula 1 would be?
They would allow a maximum of leeway, in order not to limit technical research. But this is unrealistic because performance would quickly reach a point where there would be serious safety problems due to the inadequacy of the tracks. The goal remains to create a set of rules that not only allow for many research possibilities, but impose safety as well.

What is your relationship with the different teams and their engineers?
There are very good feelings. Before the start of each season, I visit each team, in its factory. This allows us to discuss technical problems and exchange opinions more easily than in the tense atmosphere of a Grand Prix meet.

For thirty years, FISA never felt they needed their own engineer. Nowadays, it seems you are indispensable. Why is this?
Because the major constructors are becoming more and more interested in Formula 1, rallying, and Group C. The more big factories there are, the more research pays off, and the faster technology advances. In this case, the role of FISA becomes to administer its rules, in order that they might define a line of pursuit, which is beneficial for the renown and growth of motorsport.

We explained in a previous issue of GPI how you managed to inspect in less than 2 1/2 hours the capacity of a fuel tank after having removed it from the car, and why you set the margin of error at zero per cent. Could you now explain the notion of weight concerning a single seater?
We have done away with the notion of "dry" weight. The procedure is the following. First, at the finish of the race, the driver gets out of his car and we weigh the vehicle in the exact state in which it crossed the finish line. No matter how much water or fuel it has on board. You've probably figured out for yourself that if a car retires before it has had a chance to refill its water tanks, say, during a tyre change, it's possible it might be below the legal limit on inspection. But if I weigh a Tyrrell and it tips my scale at 541kg, that's good enough. It is often said that it's dangerous to reduce the weight of a single seater. I don't always agree. It depends on the quality of the construction. I can imagine building a car with a carbon fibre tub that was competitive and safe, even though weighing only 500kg. By the same token, you could have a car weighing 600kg that broke in half at the first accident.

At one time, you said even the best rule could always be reinterpreted, but that the important thing was to ferret out the cheaters and punish them. In over two years of F1, has anyone ever tried to threaten you or bribe you?
Never. The worst has never gone beyond a few harsh words, exchanged in the heat of anger.

In 5.7 seconds you'll discover why Ferrari fit NCT tyres.

The Ferrari GTB 308i Quattrovalvole takes just 5.7 seconds to travel from 0–60 mph.

It easily exceeds 150 mph.

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And no surprise that they specify Goodyear NCT tyres.

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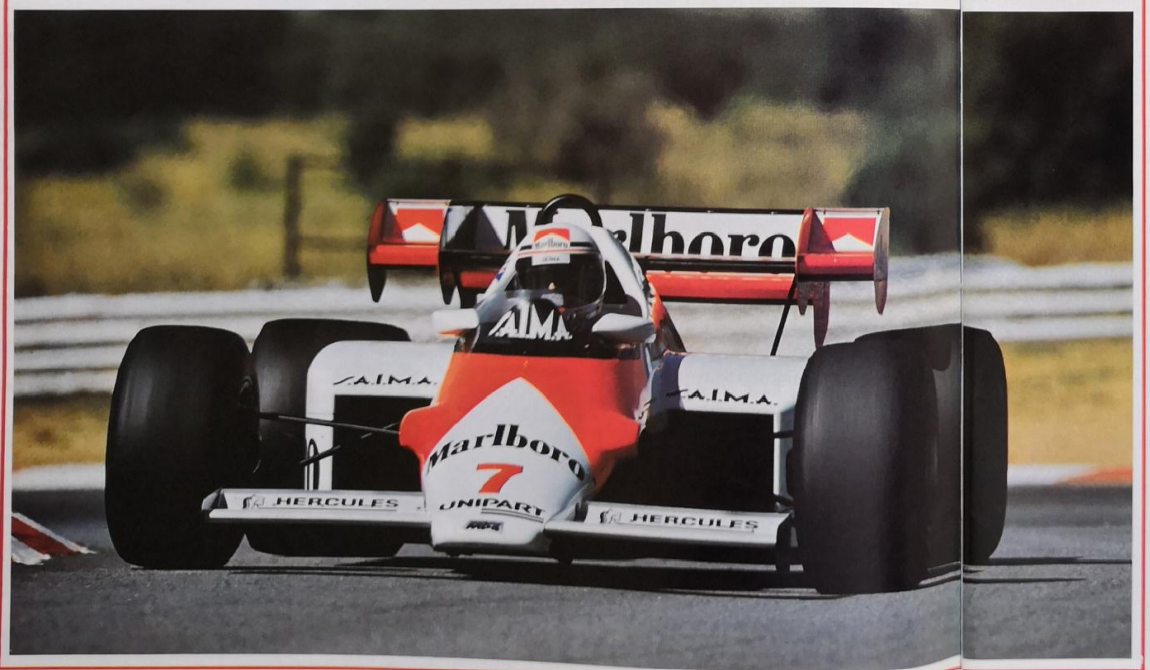
Your car could qualify for NCT tyres.

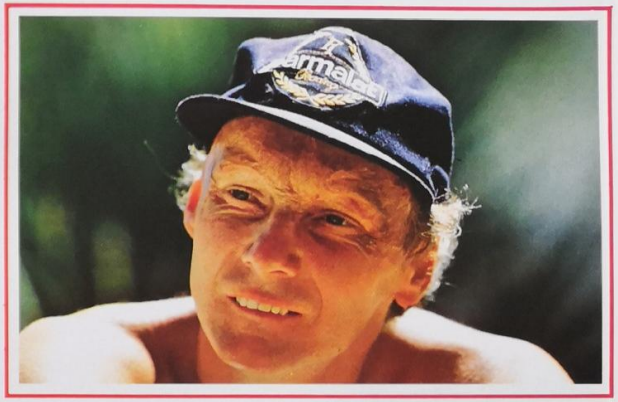
So, even if you don't have the same kind of power as a Ferrari, you can still have the same kind of grip.

GOODYEAR
NCT



Nine points for the Austrian, six for the Frenchman. Team McLaren was right on the money. (Photos: Bernard Asset)

FOXING THE GEESE, AGAIN



Some would compare him with a fox. At Kyalami, Niki Lauda once more showed he still has the look of a champion. (Photo Vargiolu/DPPI)

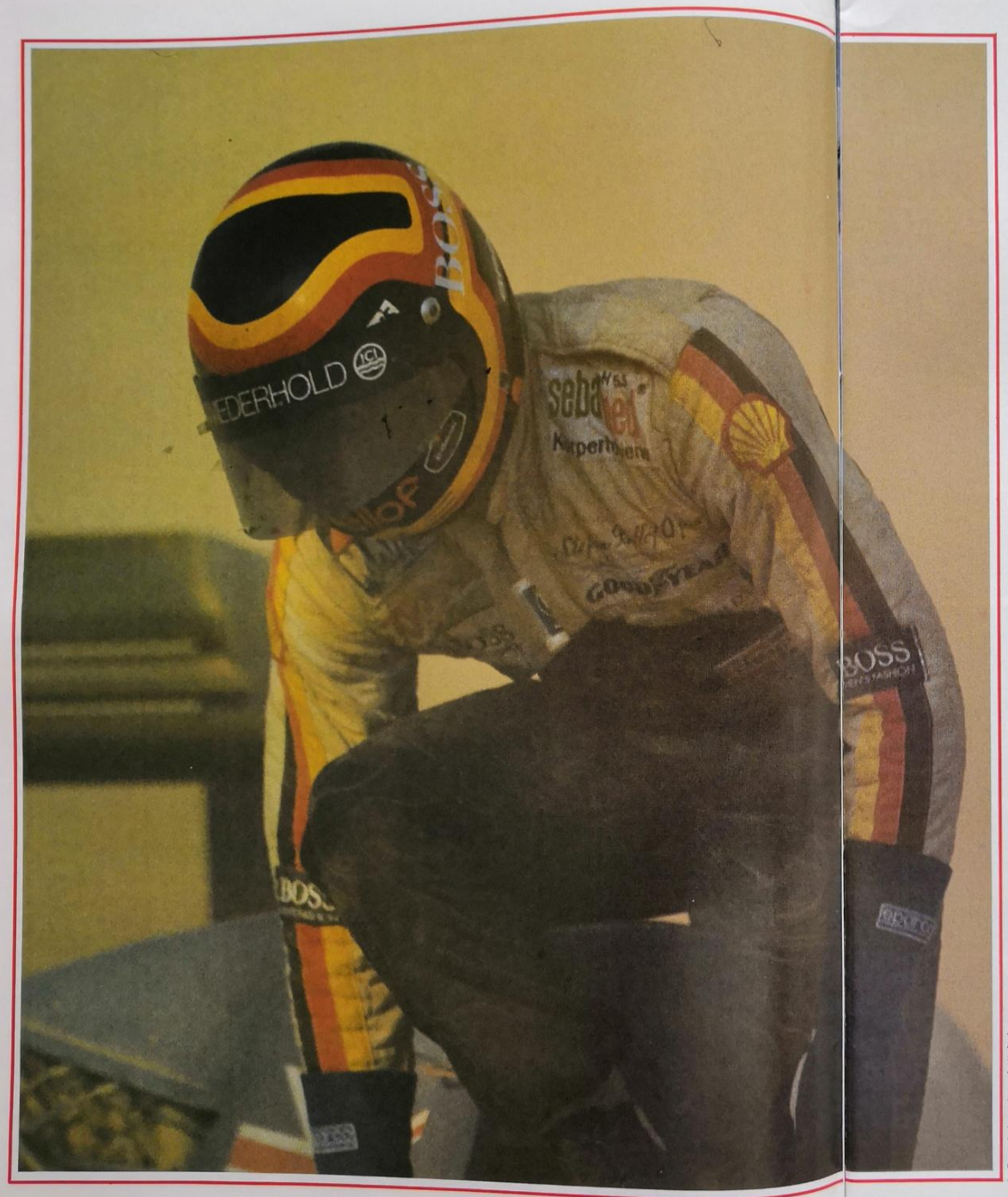
NOT SINCE JULY 1982 HAS THE OLD FOX BRISTLED THROUGH, LEAVING THE GEESE IN DISARRAY. IN BRAZIL, NIKI LAUDA HAD THE RACE IN HIS GRASP AND WAS FOILED. A GLITCH IN HIS ELECTRONIC ENGINE-MANAGEMENT SYSTEM. BUT AT KYALAMI, THERE WAS NO DENYING HIM - NOR PROST, NOR THE McLAREN-TAG TURBOS FOR THAT MATTER. ALL WERE IN SUPERB FORM. INDEED, ALAIN TAILED HIS PARTNER PAST THE CHEQUERED FLAG IN THE SECOND-STRING T-CAR. AND KEPT HIS LEAD IN THE CHAMPIONSHIP.

by Keith Botsford

"The quick brown fox jumped over the lazy dog" is the first typing lesson you get. It contains all the letters of the alphabet, just as Lauda contains all the requisites for the modern racing driver: brains, skill and now, the engine and the car that have been wanting for some years. It was his twentieth grand prix victory, his third South African victory and his nine points put him a mere sixteen-and-a-half points behind Jackie Stewart in points scored. His closest rival still racing, Jacques Laffite, is 150 1/2 points behind.

Yet the man seems as unpredictable as ever — or perhaps mercurial is the better word. Infinitely patient (whether in racing or in plotting how to race just that much better), he is also the sort of man who does not suffer fools gladly and has a well-nourished contempt for the formalities of the sport. On the podium at Kyalami he can say to the girl who's trying to hang a laurel wreath about his neck, 'Get out of here and leave me alone' and disappear in a cloud of vapour before anyone's had a chance to get to grips with his victory. But in practice, or on race morning, who's out there sunning himself on the pit-lane wall, well-wishing one and all, chatting up engineers, informing himself, advancing himself? None other than the wily fox. It's made to look casual, but Niki is anything but. He does little without purpose.

As we all know, in our sport, winners have no tales to tell. For high drama, hysteria, invention, a flash of personality, you have to talk to those who came behind; the reasons for sorrow are always more substan-



Lap 60: a brake failure at the end of the straight and Stefan Bellof's Tyrrell went off the road at the Crowthorne turn. But luckily when the dust settled, no one was hurt. (Photo: Bernard Asset)

tial than those for success. Niki said, in so many words, the car was fine, the tyres were fine, the engine was fine, I had no problems at all. And thank you very much, Mr. Lauda.

'WE FINISHED AND WITH FUEL TO SPARE. THAT IS ALREADY SOMETHING' — RICCARDO PATRESE

I happen to think the secret of the man is exactly what he says it is: absolute concentration, total commitment and a form of competitive pride that makes him as good in negotiating superb contracts as in leading a race like the S. African Grand Prix as though he had a contract with God to win. It all brought back to mind another race in S. Africa: that of 1982. Niki had just come back to racing after a two-year lay-off. Though he was an ace driver, was he not a little eclipsed by those who had come into the sport after him? By Alan Jones (then retired)? By Nelson Piquet? By a flock of new stars? What did Niki do to marshall the world's attention on him? He masterminded (on behalf of a major sports promoter who kept well behind the scenes but who wanted to group all the drivers into a powerful association, a sort of World Championship Tennis in F1) a drivers' strike. It was just the sort of coup Niki would make, and after the Wee Scot (no mean self-promoter himself), Niki remains the canniest of the lot.

'I HAD A HELL OF A RACE WITH KEKE ALL THE WAY THROUGH, AND THOROUGHLY ENJOYED IT' — — DEREK WARWICK

On the day, Niki and his McLaren-TAG made it all look easy. But the day began somberly enough with an accident which, but for a stroke of fortune, could have been fatal. That was something that was on all our minds as a huge fireball rose below us on the dusty fields of Kyalami. Up and up it mushroomed, foul and black, as we ran down to see what we feared was the worst. And when we got there, we were hardly reassured. On the track after Barbeque and along the Jukskei Sweep, there was what was left of Ghinzani's Osella: a blackened cockpit (intact) in one place, a molten engine well behind. According to eyewitnesses, Ghinzani simply lost the line on preparing for the next curve and, touching the grass, spun into the wall hitting rear-first and causing an almost immediate explosion. Whether something broke in his Osella-Alfa is a question which will have to await his own testimony, Meanwhile, the worst had not happened: Ghinzani had third-degree burns on his left hand and arm, on his neck (from losing his helmet) and around his eyes.

After that contretemps, and in retrospect, what befell Alain Prost at the start seems minor: especially when you consider that Prost finished the day handsomely leading the championship after his victory in Brazil and his second place in S. Africa. I caught up with him at the Kyalami ranch, where he was taking the night flight for France and accompanying Didier Pironi — still on crutches, but as determined as ever to get back behind the wheel of a car.

Alain admitted that the result was not discouraging: *"Let's say it ended up all right,"* said Prost, *"but as a race, it was a bit difficult. The car had been working well, but the race car had a problem with its fuel pump at the first start and I had to forget about it just as the rest were under way. As it looked at the time, I thought my race was over.*

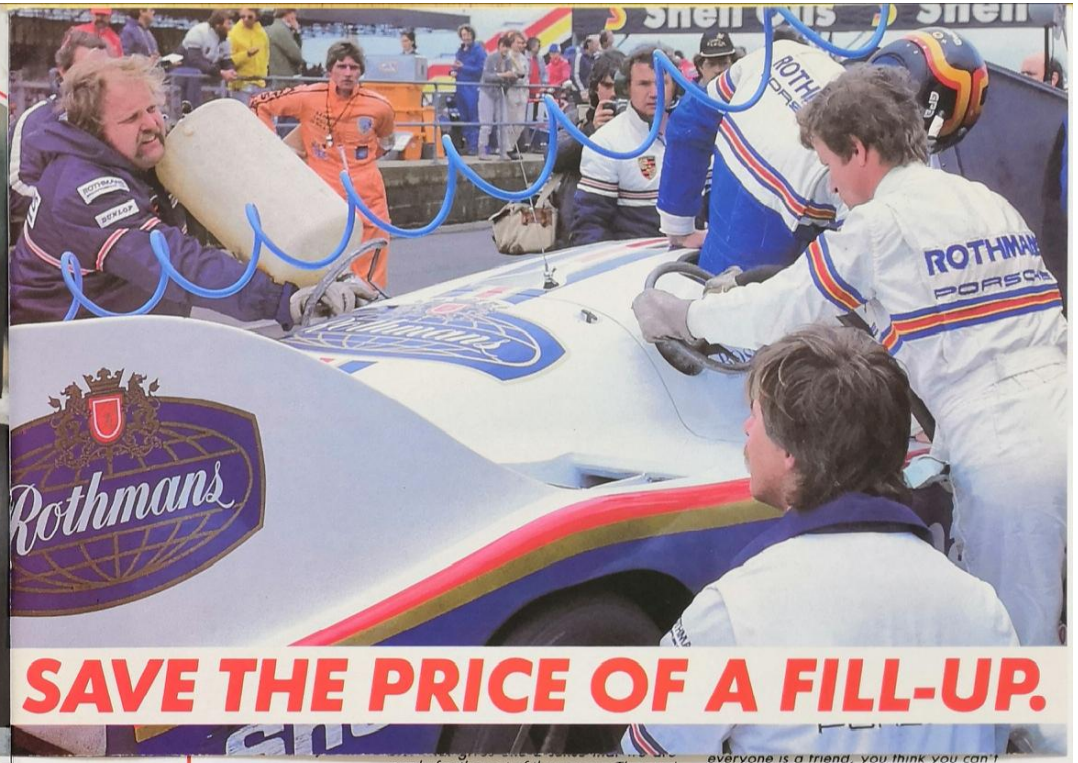
ONLY A MERE 16 1/2 POINTS LIE BETWEEN LAUDA AND STEWART'S ALL-TIME RECORD SCORE

But I jumped into the spare car. As luck would have it, the car had been set up for Niki, for it was he who had had some engine problems in the morning and the team thought he might need the spare. All in all, considering I just stepped into his car, the result was pretty good. Of course, when the race is over, you still think, you could have done even better. But you have to look at it over two races and what they mean for the future. It does look rather encouraging.

"I am also truly happy for Niki. It's been a long time since he won a race, he deserved to win in Brazil — as I did — but he might not have, for he might have had to stop for tyres. What is really important is that we work very well together. The truth is that

→

Riccardo Patrese finished 4th. The same as his teammate Eddie Cheever in Brazil. The new Alfa Romeo 184Ts seem promising. (Photo: Bernard Asset)



SAVE THE PRICE OF A FILL-UP.

ready for the rest of the season. That and the spirit there is in the team, which is small and easy to get along with."

About Niki, Alain said, half in joke, that Niki had come up to him before the race and said: *"Look, I absolutely must win. I'm already nine points down."* Added Alain: *"I find that super. There's not been any problem between us. In Brazil, when he was ahead, I was just happy for him. I thought of the one-two and I was pleased for both of us, and for the team. Our task is to maintain the same technical and human values."*

A pleased and notable fourth, putting Alfa Romeo into the points after a long dry spell, was Riccardo Patrese. *"The result is positive,"* said Riccardo. *"We are not particularly fast, but at least we've shown we can be reliable. Our main problem is that our car is still new, but that we are adopting old solutions to new problems. But as I've said, we finished, and with fuel to spare: that is already something. I had a slight edge because I made an excellent start, and though I was overtaken, I was able to keep going — I was paying rent on my place, and as others dropped out, I was able to cash in. I couldn't exactly attack, so I was forced to wait."*

NIKI AND HIS McLAREN-TAG MADE IT ALL LOOK EASY

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GHINZANI HAS THIRD-DEGREE BURNS ON HIS NECK AND AROUND HIS EYES FROM LOSING HIS HELMET

Finally, because a fox always brings mystery, let us consider the question of the little plastic balls in the McLaren fuel tanks. Depending on whom you believe — one gentleman from FISA, another or an eye-witness to the post-race examinations — there were 46, 40 or 16 of these tennis-ball-sized, transparent plastic balls in the winner's fuel tank. The FISA stated that they were entirely legal — even though traces of fuel were found inside them. The simplest explanation is that the McLaren chassis was designed before the new fuel limitations were in force and was therefore designed to hold 260, not 220 litres. Unwilling to redesign the chassis (because it was working well), the little plastic ball solution was adopted, their volume filling the fuel tank. But how many were they? And if, as some allege, the were already in use in Rio, why was the subject not mentioned?

It takes nothing away from Niki and Alain and there one-two. It's just the sort of ruse foxes get up to. □

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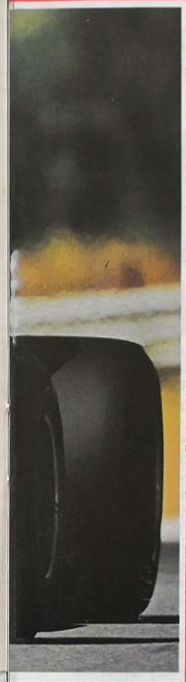

Riccardo Patrese finished 4th. The same as his teammate Eddie Cheever in Brazil. The new Alfa Romeo 184Ts seem promising. (Photo: Bernard Asset)

For Derek Warwick, it was his first time on the F1 podium. In addition, his Renault finished with 11 litres of fuel to spare. (Photo: Bernard Asset)

the two of us are developing the McLaren faster and better than the other teams. The fact that we have two drivers, quite independtly, working on the cars, is definitely an asset. We pool our knowledge and we get ahead. Another factor is that when we want something done, we get together and insist on it. I think that's the right way to go about it. In most teams, there is always one driver who is the more favoured, that's natural; but with us, as we are both equal, the team experience is there by enriched.

THE SECRET OF THE MAN IS ABSOLUTE CONCENTRATION, TOTAL COMMITMENT AND COMPETITIVE PRIDE

"I was 28s behind when I took over second place. There were 32 laps left and although I'd come up well through the field, I knew that I would have to attack right to the end if I wanted to win. But I didn't know if my fuel had been cooled, so there might have been ten or twelve litres difference between us; also he was first and I was second, and if it had been another driver, it might have been a different story. It was more important for me to make sure of second place, so I slowed down. The main thing is that we now know the cars are reliable. That gives one a sense that we are ready for the rest of the season. That and the spirit there is in the team, which is small and easy to get along with."

About Niki, Alain said, half in joke, that Niki had come up to him before the race and said: *"Look, I absolutely must win. I'm already nine points down."* Added Alain: *"I find that super. There's not been any problem between us. In Brazil, when he was ahead, I was just happy for him. I thought of the one-two and I was pleased for both of us, and for the team. Our task is to maintain the same technical and human values."*

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NIKI AND HIS McLAREN-TAG MADE IT ALL LOOK EASY

Equally happy with his result was Derek Warwick for Renault: another driver with a near miss in Brazil. *"We started on 10's, with Patrick on 5's, thinking we might go the whole distance on those tyres. At the beginning it was fairly competitive. I had a hell of a race with Keke all the way through, and thoroughly enjoyed it. He was quicker than me up the straights, but I was quicker than him overall on the lap. If I could have got by, I probably would have pulled away, but you have to get by first. I just enjoyed it: it was tit for tat, he used the road.*

"Keke having gone into the pits the lap before me, they pulled me into the pits and we went for 5's all around. A real quick in and out. I came out like a steam-bat; I was about 15s ahead of Keke when I came out. We dropped down to 9th and then got up to 3rd, then I had a slow deflation due to a busted tyre valve. The intercom came in: I sand 'Box, box, puncture,' came in and went straight out again. After that I was passing everybody: getting past the Ferraris, yum yum, some good things with Alboreto, four abreast on the straight! It was all thoroughly satisfying.

"I could have done better, but the second stop cost me some 25s. Also, the last 20 laps or so, I did without a clutch. The master cylinder broke. OK going down the bow that's okay, but coming up is another story. I thought I'd do the gearbox." For Derek, first time on the podium. Satisfying. Main pleasures? A good race that was fun, and a gowing relationship inside Renault: *"After four years with Toleman where everyone is a friend, you think you can't build that up again. But it's all there. I feel I'm part of Renault."*

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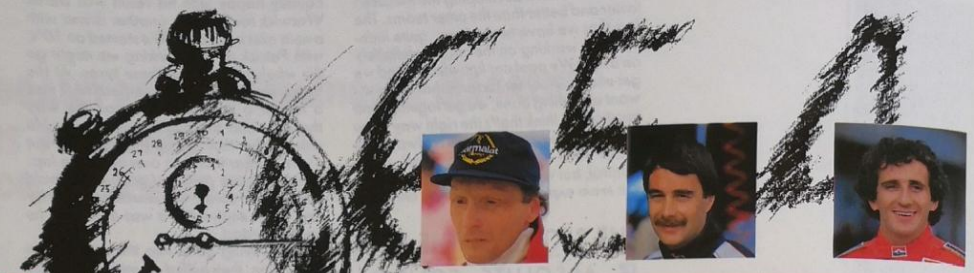


The first of the [illegible] Thursday morning [illegible] occurred when the gear linkage of the latest McLaren MP4-2 came apart, forcing Alain Prost to coast to a halt at Clubhouse corner. The bodywork caught fire where it was too close to a turbo unit, and a minor bonfire started. Prost crossed the track to report the news and was almost scooped up by Bellof's passing Tyrrell.

For several minutes in the early part of the session, young Senna had given an indication of his qualifying form by leading the practice times on the Longines TV monitors. But the weekend started badly for Johnny Cecotto, Senna's team mate, when the Venezuelan lost control of his Toleman in a fast turn, hitting the bank hard enough to put the British turbocar permanently out of action.

The interruption allowed two other cars to be towed in from their involuntary parking spots: Arnoux's Ferrari, which was fated to suffer throughout the next two days, had come to a halt when the Frenchman accidentally hit the fire extinguisher / electrical "kill" button while fiddling with his cockpit adjustable roll bar; and Keke Rosberg's Williams, in which the Honda engine had stopped with an electrical fault. By the end of the session, both of the RAM-Harts had also been stranded on the circuit for different reasons.

Most of the faster drivers had already had an opportunity of testing their special soft qualifying tyres in the morning. Both Goodyear and Michelin products had sufficient durability to give two super-quick laps provided that the drivers found a reasonably clear track. There was not so great a gap as usual between the performance of the "Big Two's" qualifiers at Kyalami, but once again it was a Goodyear user, Keke Rosberg, who managed to snatch the overnight pole from Nelson Piquet's Michelin-shod Brabham. "My Williams is still understeering more than I would like," said Rosberg, "but the changes which have been made to the suspension since Rio are a useful improvement."

Renault (he used the T-car in special qualifying trim), but others — including his team mate Warwick and both the Lotus-Renaults — were in trouble with insufficient boost.

Both Ferrari drivers were perplexed: their cars handled nicely but they simply couldn't find sufficient speed, and their Goodyear tyres (so effective on Rosberg's Williams) were blistering badly. Arnoux was stuck on the circuit again, this time with a spontaneous electrical fault.

The TAG/Porsche engines in the two McLarens were not adapting well to the 5,600 ft altitude, due to a programming mistake in the Bosch Motronic electronic management system. At the other end of the grid all four of the Cosworth-engined cars had qualified, at least provisionally, due to problems with the two RAMs, neither of which had yet completed a single lap of official qualifying.

There was no doubting the superior straight-line speed of the Brabhams at Kyalami: their BMW engines were propelling them down the long pit straight faster than anyone else. At the official timing point in front of the pits Piquet was timed at over 310 km/h, but independent speed traps had him at a consistent 325 km/h at a point just before the braking for Crowthorne corner.

On Thursday night, Brabham designer Gordon Murray recognised that perhaps his cars were set up with too much top speed, and when unofficial practice began on Friday morning they had been adjusted to give more downforce, in the hope of improving cornering speeds and reducing lap times. Tambay — again using the "qualifying" Renault T-car — was fastest in the session. Piquet set 2nd fastest time but had to walk back to the pits after an oil pump failure illuminated the oil pressure warning light. Another morning pedestrian was Rosberg, whose Honda engine stopped without warning.

The Ligier team tried a new rear wing on Hesnault's car: it made such a useful improvement to his straight line speeds that it was put on the de Cesaris car, with equally promising results. Most unfortunately, only one of the new wings had been brought from France, and de Cesaris was to get it for the race.

By 1 pm, when final qualifying started, it was a much hotter afternoon than the previous day, and several teams managers worried that the heat might prevent their drivers from improving on their Thursday times. Their fears were groundless, for only five of the 27 drivers present failed to make an improvement.

Keke Rosberg decided to choose a set of more durable race tyres and only one set of "quallies," in order to do some final checks on the revised aerodynamic settings of his Williams, reeling off a dozen consecutive laps while rivals performed "banzai" feats on their soft rubber. But the Finn was so determined to seize pole on his second permitted set of tyres that Kyalami fans will probably still be talking for years to come about the super-spectacular lap which he performed (the local TV service caught every yard of it and broadcast it that night). At Clubhouse corner the WIlliams put a wheel into the dirt, but Keke didn't lift: "it cost me a small amount of time," he said later, "but it felt like a pretty good lap."

It would have been good enough for pole, perhaps, if Nelson Piquet's mechanics hadn't broken all records to replace the big-turbo "Q" engine in his Brabham BT53 after the morning failure. Nelson calmly climbed aboard and ripped off the only lap of the week-end to get below the 65 second mark, 0.2 seconds faster than Keke.

Fastest of the Renault users was a delighted Nigel Mansell, 3rd overall in his JPS-Lotus, who packed some close calls with slower traffic into his last flying lap of the session to take a second row position alongside the ever-consistent Tambay. Fifth fastest was the fast-improving McLaren of Prost (using the new T-car again), ahead of Fabi (who had to use his spare chassis) and the second JPS-Lotus of de Angelis.

There were disappointed faces at Renault, where Warwick had failed to improve his time after an air leak developed in his turbo's induction system. And the Ferraris were still showing no signs of improving their speed.

There were some fine performances among the smaller teams, notably Manfred Winkelhock's 12th fastest with the new ATS-BMW and the 13th fastest time set by Ayrton Senna, whose Toleman-Hart engine was given as much boost as Brian Hart dared to allow. The two Alfa Romeos were even more disappointing than the Ferraris, partly due to the negative results obtained from the new, larger Avio turbochargers.

Right at the back of the field, lapping over seven seconds slower than the leading turbo, were the four Cosworth-engined cars of the Tyrrell and Arrows team. Crafty Marc Surer arranged a useful slipstream "tow" down the straight behind his friend Manfred Winkelhock, which his Arrows all of 0.2 seconds faster than Bellof's spectacularly-driven Tyrrell.

FRIDAY: NELSON CAPTURES POLE POSITION ON THE TRACK WHERE HE IS KING

1

2

3

4

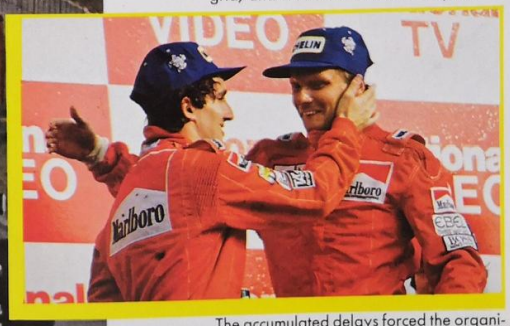
5

6

SATURDAY : McLAREN MP4/2-TAG, NIKI LAUDA, ALAIN PROST... AND THE REST

Which is better: to revel in the victory of the McLarens or take an egotistical view and chide them for having taken all the interest out of the South African Grand Prix? The parched yellow grass and burnt-red soil surrounding the Kyalami race track were silent witnesses to the noisy triumph of the red and white monocoques. Their superiority was so great that their nearest challenger, Derek Warwick, finished a lap behind Lauda and Prost. A further note on the fine form of the McLarens: Alain Prost was able to afford the luxury, in a style all his own, of a hard charge up through the field — having started at the very back of the pack — to put himself in second place behind Lauda by the middle of the race.

His performance was all the more remarkable when one considers that the current leader in world championship points found himself with a broken fuel pump on the dummy grid, and was forced to use the spare.



The accumulated delays forced the organisers to shorten the race to 75 laps. Rosberg charged briefly into first place, only to be rapidly overwhelmed by Piquet, who was followed in his initial hard charge by Fabi and Niki Lauda. Rosberg's attention was then turned to fighting off the very aggressive pack of Warwick. Tambay, De Angelis, Alboreto and Laffite, a formidable bunch indeed.

Meanwhile, Lauda had dispensed with Fabi — who had been heroically protecting his team-mate and front-runner — and was running a very patient second, obviously waiting for his turn to come.

Unshakable, Lauda continued his calm, steady run, watching as Piquet devoured his tyres before overtaking him on the 20th lap. On the next lap, Piquet dove into the pits with his blistered tyres, a surprise when one considers he was on the same tyres as the McLarens. Prost, meanwhile, had already worked his way up to seventh place while Rosberg, still lying third in spite of the problems he was having with his tyres, had given up over twenty seconds to Lauda.

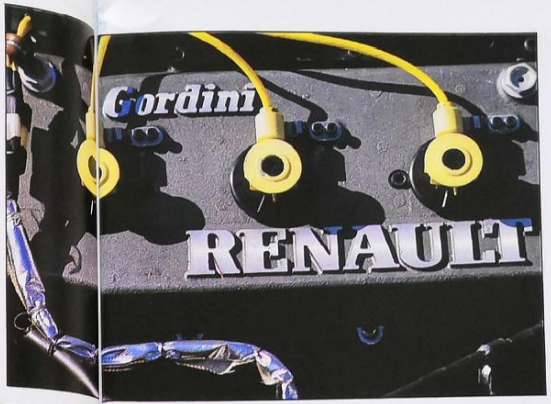
The remainder of the race was punctuated by a series of mechanical failures which successively struck down all of the early front runners: Piquet, Rosberg, Laffite, Tambay and Alboreto. Laffite was stopped by a rear wheel which came loose after his pit stop, and upon getting out of his car he discovered that a front wheel was loose as well, a result of improperly tightened bolts. We would never have expected errors of such magnitude from the mechanics at Williams.

With Fabi having stopped at the 18th lap, only Derek Warwick remained of the group of drivers who had animated the early laps of the race, and he thus found himself a third place finish, his best result in Formula One.

Patrese drove a consistent if uninspired race and got fourth place ahead of De Cesaris, who put Ligier into the points for the first time since the Las Vegas Grand Prix of 1982! What a shame that Guy Ligier couldn't have been in South Africa.

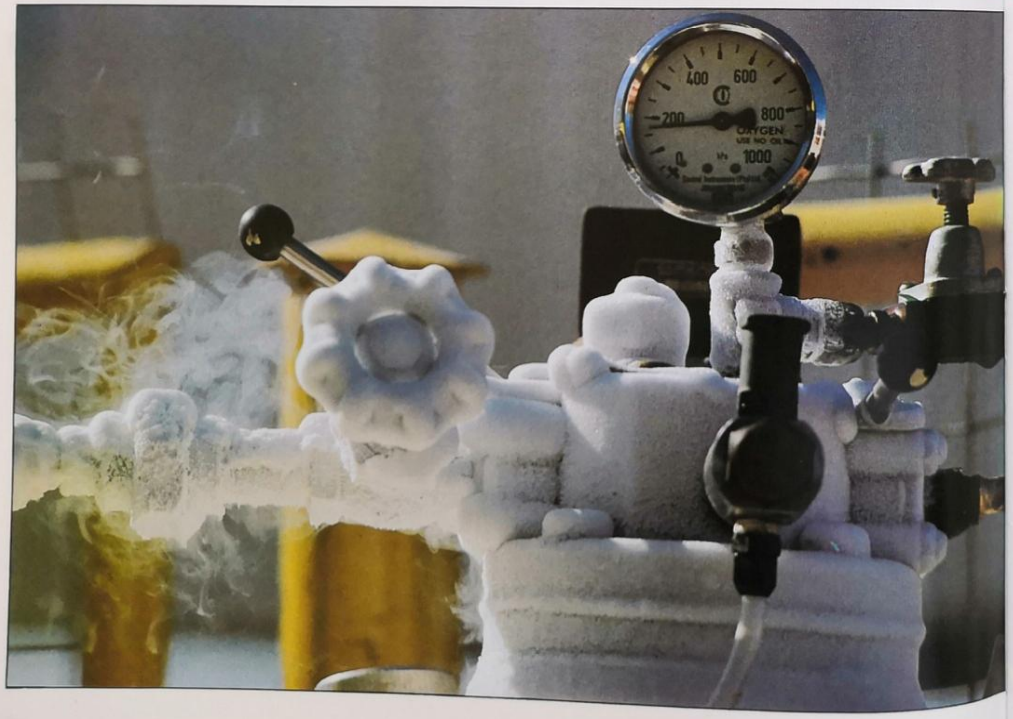
Senna found himself in sixth place, but behind by three laps, which is a comment in itself on the hardships the cars endure running at Kyalami. A spectacular bit of braking work by Stefan Bellof gave race watchers at Crowthorne some spine-tingling moments towards the end of the race. The young German driver's Tyrrell stopped at the very limit of the run-off area, giving much credibility to FISA's request that it be enlarged earlier this year.

The two McLaren drivers are now heading up the championship points, having scored an impressive double. For Lauda, it was his twentieth victory in Formula One. As for Patrick Tambay, who once again ran out of fuel (although team-mate Warwick got across the finish line with 11 litres in his tank) he was at least able to whisper the lap record into McLaren ears, a record he set on the 65th lap when he no longer had anything to lose. Had he not done so, the victory of the men from Woking would have taken on outrageous proportions.



COMEBACK

The team from Vichy is still chasing after days of glory gone by. And de Cesaris has given them a boost, propelling Ligier back into the points after an 18-month dry spell. Indeed, the team has had nothing to show for their efforts since Cheever's 3rd place finish at Las Vegas in September 1982. Nonetheless, development of the Ligier JS23-Renault has a long way to go yet. De Cesaris (number 26) and Hesnault (number 25) were struggling at Kyalami because of their single seaters' vicious tendency to understeer. Meaning the Italian had to follow a wider line through Crowthorne corner during the race. (photo: Bernard Asset)



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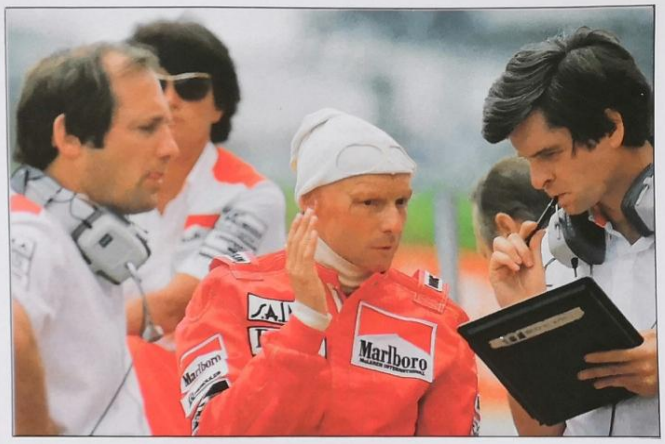
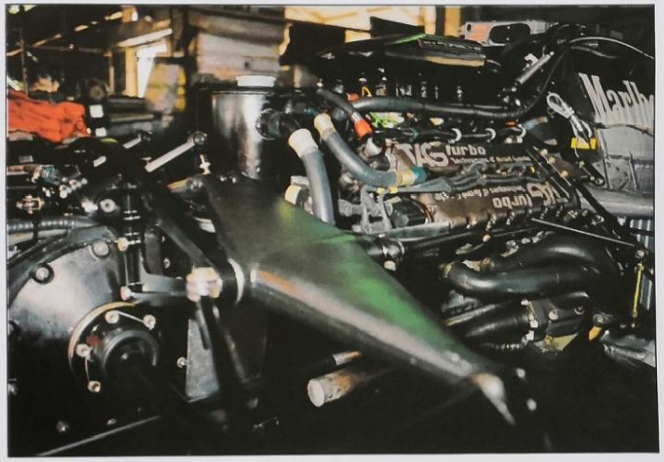
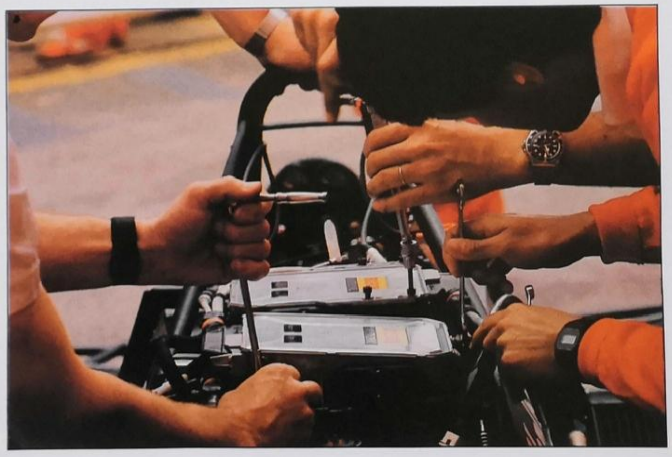


Nowadays, there are three types of drivers in F1: first, those who run out of petrol, second, the ones who swear they finish the race with at least 30 litres to spare, and third, those who belong to the McLaren team. Which means Niki Lauda and Alain Prost. At the end of the South African Grand Prix, Lauda's McLaren still had 13 litres in its tank. According to FISA, who measured the amount, this is the equivalent of about 5 laps. McLaren's secret? They refrigerate

TAG turbo engines



their fuel, and use sophisticated pumping equipment which is impervious even to the Kyalami sun. But everyone has these systems. The same goes for fuel consumption monitors, in vogue on all F1 dashboards. The real secret is their TAG-Porsche engines and the Bosch Motronic electronic engine-management system. Not to mention an exemplary working relationship between drivers and engineers. Progress report: two wins in two races, and the opposition up against it.
(photos: Bernard Asset and Eric Vargiolu / DPPI)



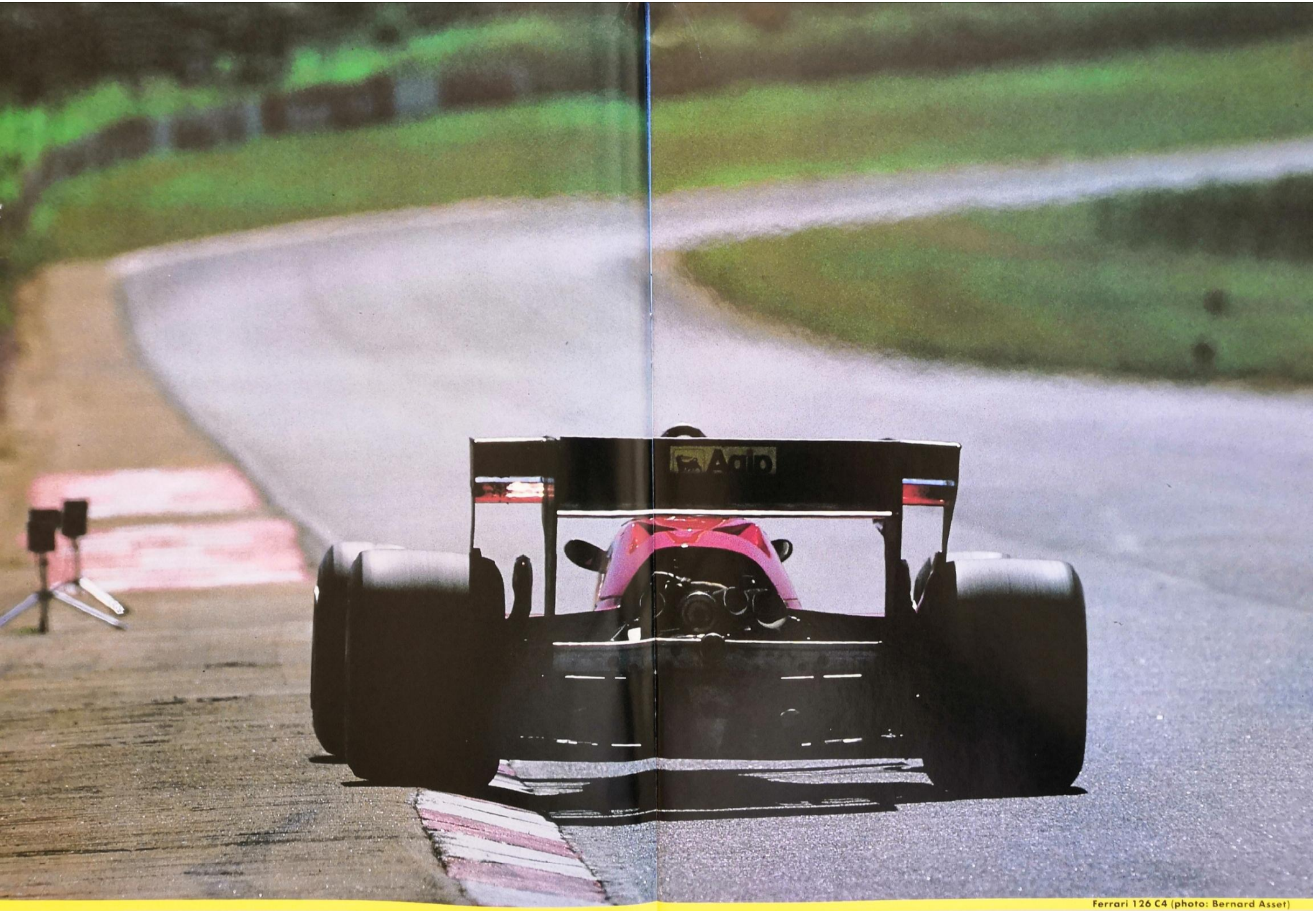
Warwick/Renault number 16, Alboreto/Ferrari number 27, de Angelis/Lotus number 11 (photo: Bernard Asset)

WHEEL TO WHEEL, DEFYING REASON, THROUGH CRO

VTHORNE ON THE FIRST LAP - FAINT HEARTS BEWARE

Patrick Tambay/Renault RE50 (photo: Bernard Asset)

A GAS-GUZZLING RENAULT V6 TURBO LEAVES TAMBAY HIGH AND DRY - FOR THE SECOND TIME THIS SEASON



Ferrari 126 C4 (photo: Bernard Asset)

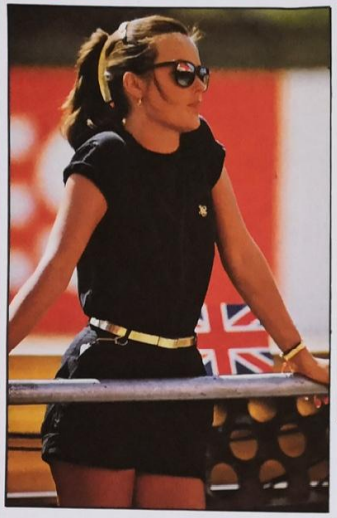
THE BOGEYMAN IS UNMASKED AND FOR THE TIME BEIN THERE'S NOTHING TO FEAR FROM THE FERRARI 126 C4

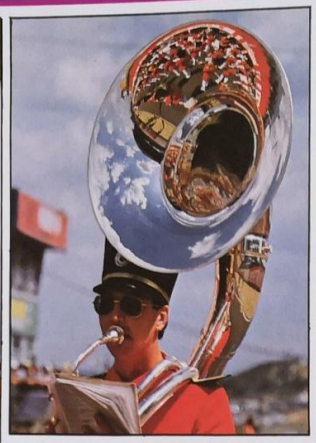
Johnny Cecotto/Toleman-Hart (photo: Bernard Asset)

CLOSE-UP ON AN AGING SINGLE SEATER - FOR CECOTTO, HOPE LIES WITH THE TG 184. HIS OBJECTIVE: BEAT SENNA

Crowthorne Corner (photo: Eric Vargiolu/DPPI)

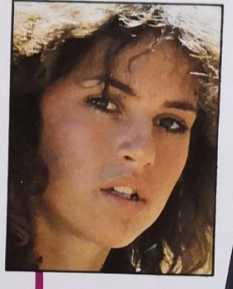
A FALLOW FIELD AT THE BOTTOM OF THE STRAIGHT - AND STEPHAN BELLOF WAS THANKING HIS LUCKY STARS





His ... And hers

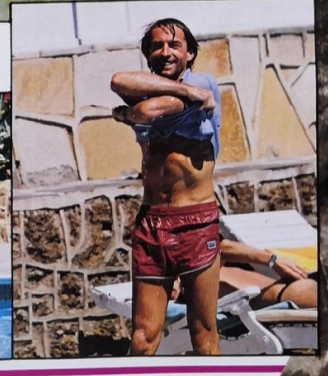
Centre-spreads for Alain and Niki



Only a shower block

A cold shower for Jacques in ...

...Kyalami



KYALAMI

Ayrton Senna/Toleman-TG183B-Hart (photo : B. Asset)

THE WAGES OF PAIN

I DIDN'T THINK IT WAS THIS DIFFICULT TO SCORE A POINT IN FORMULA ONE. GRIMACING, AYRTON SENNA BARELY MANAGES A SMILE. HIS NECK IS HELD immobile in a brace, his left hand bandaged, his right arm bound tightly in a sling. The sweet smell of ether wafts through the air, discreet yet pleasantly intoxicating, unmistakably identifying the place as a medical centre. Equally unmistakable is the prototypical nurse in attendance, a heavy-set woman with overpowering maternal instincts. Ayrton is sitting up on a rolling metallic hospital stretcher, his overalls knotted up around his waist. He watches as a friend does up the laces on his driving shoes. Catching sight of the nurse, he tries a fast move: *"The doctor had told me that I would be able to leave at 5:30."* She is not impressed. *"I'm sure he did, but I'd rather he examined you one last time before I let you go."*

Ayrton has obviously had enough. It's been an hour and a half since he was brought in, semi-conscious, to the medical centre at the Kyalami circuit. He recounts what happened: *"The steering was unbelievably hard, and the car was just on the bumps. I don't understand what happened. The Tolemans are always difficult cars to drive. But what happened this afternoon...*

"I hit something on the track at the very beginning of the race, and it tore off a piece of the top of my car's front hood. It was my fault. I saw it too late. At the time, I happened to be looking at my instruments. None of this helped matters any, as I had already found the car very difficult to drive during the warm-up. I had come into the pits then but the mechanics couldn't find anything wrong. So I just gritted my teeth for the race."

Quite a lot of gritting: he has a sprained neck and right arm, was suffering from dehydration and literally passed out at the end of the race: *"What's funny is that during the race I was so concentrated that the pain seemed tolerable. But as soon as I came across the line, I collapsed. I nearly stopped at the far end of the stands but I carried on. When I came into the pits, the mechanics had to lift me out of the car. I couldn't move a muscle."*

As the Valium they administered takes effect, Senna is no longer is spasms of pain. His tortured muscles seem to respond to a supplementary drug: the satisfaction of having scored his first point in Formula One. *"I expected to finish seventh. Peter Gethin came to see me, to tell me that Prost might be disqualified. I spent a long time waiting, without knowing. That was awful. Finishing seventh, that's nothing in F1. A sixth place finish means a point in the world championship. One of my friends, a Brazilian journalist, finally brought me the official results: that's when I saw that I was sixth, and that our lap chart was wrong... so it doesn't matter to me in the least whether Prost is disqualified, I'm in the points".*

It would be unfair to Senna to consider his drive at Kyalami as merely a courageous one. Indeed, it would be underestimating greatly the intelligence with which he drove the race. *"When I damaged the front of the car I had doubts about whether or not to take it into the pits. But I suspected that it was more than surface damage and that repairing it would take longer than simply changing the front nosepiece. I decided to stay on the track and be as cautious as possible. I turned down the boost in my turbo, which enabled Cecotto to catch up with me."*

That choice of tactics proved to be the right one for Senna: the early leaders of the race were not spared the vagaries of technical mishaps, and as Alboreto ground to a halt a mere, five laps from the chequered flage Senna was suddenly propelled into sixth place. He has no illusions, however, about the competitiveness of the Toleman 183G: *"That model is now a year and a half old. I'm expecting a lot from the new Toleman 184."*

The latest Toleman should make its first appearance at Zolder, where one car should be ready for testing. Peter Gethin was not saying at Kyalami who would be driving the car at Zolder. It would be very surprising if it were not Senna. Ayrton, walking with slow, deliberate steps, finally left the medical centre followed by two friends. The doctor finally released him after giving him one last piece of advice: not to drive until the effects of the Valium had worn off.

Xavier Chimits

TEO'S KYALAMI COMEBACK

EARLY IN THE SOUTH AFRICAN GRAND PRIX, BY FAR THE MOST SPECTACULAR SIGHT WAS THE SPEED OF THE TWO BMW-ENGINED BRABHAMS. IN SPITE OF almost stopping as his engine died when the starting light went green, Nelson Piquet had recouped five of the six places he'd lost by the time he arrived at the first corner. Renault driver Derek Warwick was an astonished witness: *"I reckon those brabhams were 20 km/h faster than we were in practice,"* he said with a touch of jealousy. *"They seemed just as quick in the race."*

Equally spectacular was the sight of the two Parmalat-sponsored cars under braking. Their needle noses would dip, and the chassis brushed the road surface under a full 220-litre load of fuel.

Showers of alarming-looking sparks spurted from beneath the chassis, although, as Gordon Murray explained, it was nothing to worry about: *"unlike the other teams, we use titanium instead of aluminium for the skid plates, and it produces a lot more sparks"*.

Teo Fabi, the 29 year old Milanese driver who was having his second race with Brabham, admits that it was difficult to keep the secret of his association with Ecclestone way back in September, when it was first signed. *"there was a problem getting a licence to race Indy-Cars as well as Formula 1 because of Balestre, but Ecclestone promised me that it would be OK."* And Ecclestone was right...

At Kyalami Teo did everything that was required of him. He qualified well, using the team's T-car with its "big boost" BMW turbo compressor. *"I was holding off Niki Lauda for a dozen laps to protect Nelson while he pulled out a lead in the race,"* he said afterwards. He had retired, Like Nelson, with a turbo failure soon after the tyre stop, so he cancelled his helicopter flight to the airport and drove there quietly instead with his newly-married wife. They were going home to Italy very briefly before Teo had to climb aboard the US-bound plane which would take him to his next CART race, the following weekend, in Arizona.

Two years previously, Teo Fabi had not been a popular man at Kyalami. Alone among the F1 drivers he had resisted the call for solidarity with those who agreed with Didier Pironi that their professional rights were compromised by the terms of the new super-licence which FISA (and some team owners) wanted them to sign. While the other drivers refused to take part in the first official day's practice, Teo had done so. And when the drivers demonstrated their determination by taking part in the now celebrated communal "sleep-in" at the Sunnyside Park Hotel, he had slept in his own bed.

Hot words had been spoken about this "disloyalty." But Teo felt, as a newcomer to F1, that he could not afford to antagonise his team and its sponsors. Fortunately, the memories of most drivers are remarkably short, and the Kyalami incident has been long forgotten by most of them. But Ecclestone has a longer memory, and it can be surmised that he had positive feelings about Fabi when Parmalat, his sponsor, insisted that he find an Italian driver to join the Brabham Team in 1984. Since then, Teo Fabi has become a household word in America. *"When I took pole position at Indianapolis last year I became more famous than any European racing driver,"* he said. And this year has a gruelling programme of racing on both sides of the Atlantic, with kid brother Corrado, 23, ready to step in at Brabham when the world campionship races clash with CART's calendar.

It's a joke in the Brabham Team that Corrado only joins his brother at the grand prix races because he's looking for an opportunity to slip something into his brother's lunch that will leave Teo indisposed. The truth is that the two boys are as close as only an Italian family can be. One day, when racing is over for them, they will take over responsibility for the mine in northern Italy where Fabis have excavated talc (yes, for talcum powder) for almost 100 years.

For the time being, though, Teo's enthusiasm and ability have helped him to fit in perfectly with the Brabham team, and Murray appreciates the smooth, undemanding style of driving that gets the most out of his chassis. The little Italian with the fast-receding hairline may officially be number 2 on the team, but it seems a strong possibility that he will be in a position before long to win a grand prix in his own right.

Mike Doodson

Teo Fabi/Brabham BT53-BMW (photo : B. Asset)

ALFA ROMEO EURORACING

22. ALFA ROMEO BENETTON/ALFA ROMEO 184T-02
Riccardo Patrese (I)
18th in qualifying, 4th in race
23. ALFA ROMEO BENETTON/ALFA ROMEO 184T-01
Eddie Cheever (USA)
16th in qualifying, DNF in race
T. ALFA ROMEO BENETTON/ALFA ROMEO 183T-06

Advanced Composites-built cars had revised air ducts in the side pods since the Rio race. Avio, who supply Autodelta with turbos for their 1500cc V8 engines, had brought along some of their 5,000 models in order to improve throttle response. Patrese tried these larger diameter models on the spare 183T, but soon returned to the pits with smoke trailing from one of the turbos. So Patrese and Cheever had to make do with smaller turbos which weren't suited to the circuit's altitude. Cheever tried a conventional rear wing without mini side wings in order to improve straight line speed, but no conclusions were reached. However, aerodynamic modifications should appear at Zolder after the cars have been in the wind tunnel.

Engineer Marmiroli's 184Ts had scarcely been modified since the Brazilian Grand Prix, partially because most cars only arrived in South Africa on the Wednesday before the race. However, the

ARROWS-COSWORTH

17. BARCLAY TEAM ARROWS/ARROWS-COSWORTH A6-4:
Marc Surer (CH)
24th in qualifying, 9th in race
18. BARCLAY TEAM ARROWS/ARROWS-COSWORTH A6-5:
Thierry Boutsen (B)
27th in qualifying, 13th in race
T. BARCLAY TEAM ARROWS / ARROWS-COSWORTH A6-1

engines were even more at a disadvantage than before, due to Kyalami's height above sea level. Further more, the cars were the slowest in a straight line, with a best of 165 mph as against Brabham's 197 mph. But Arrows shouldn't be relying on the A6s much longer, for three BMW turbo-powered A7s have already been built and five engines have been delivered. The team was expecting to go testing on its return to England and the results would indicate whether A6s or A7s will be run at Zolder. However, it probably will not be until Imola that Surer and Boutsen join the turbo brigade.

Not surprisingly, the Arrows hadn't been modified since Rio, although their normally-aspirated 3000cc Cosworth

ATS-BMW

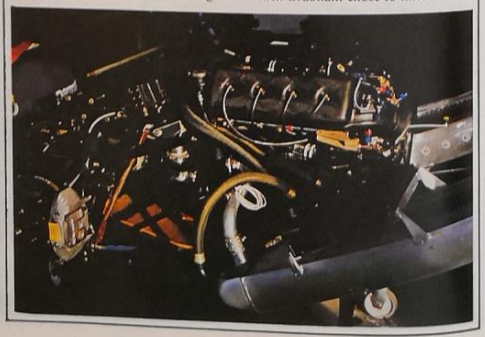
14. ATS WHEELS/ATS-BMW D7-1:
Manfred Winkelhock (D)
12th in qualifying, DNF in rae
T. ATS WHEELS/ATS-BMW D6-3

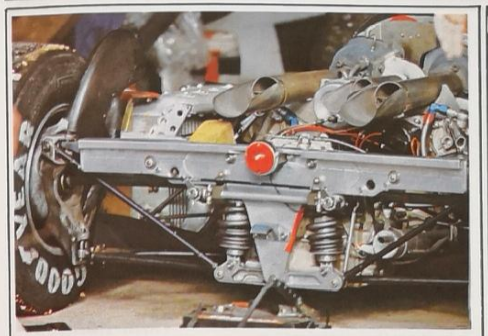
Since its first appearance in Rio, the brand new ATS D7, Gustav Brunner's final design for the team before he left for Alfa Romeo, had undergone various tidying up modifications, which is quite usual for a new car. However, it's interesting to note that the new car's underbody extends as far as the gearbox, as on the Renaults and Ligiers. Winkelhock set an excellent ninth fastest time during the first qualifying session, but wrecked his qualifiers the next day with a very quick 180 degree spin at Ford corner. He covered about a hundred yards in the process, and ended up staring a couple of his adversaries in the face, but they just managed to avoid his stationary car.

BRABHAM-BMW

1. BRABHAM MOTOR RACING DEVELOPMENTS/BRABHAM-BMW BT53-5:
Nelson Piquet (BR)
1st in qualifying, DNF in race
2. BRABHAM MOTOR RACING DEVELOPMENTS/BRABHAM-BMW BT53-2: Teo Fabi (I)
6th in practice, DNF in race
T. BRABHAM MOTOR RACING DEVELOPMENTS/BRABHAM-BMW BT53-3

Once again, few changes in the Brabham camp, although the spare car's four-in-line BMW engine was fitted with a bigger KKK turbo, and it was in this car that Piquet and Fabi qualified. It was rumoured to give around 750 bhp. The Brabhams were quickest in a straight line, although people were sceptical of the extraordinary 211 mph claimed by Renault at the end of the straight. Fabi suffered an engine problem during the second qualifying session and relied on his time from Thursday. Nelson broke a turbo just before Friday's unofficial session, and then had on oil pump break. However, he had his revenge in the afternoon by setting pole position. The Brabhams' bodywork had been fitted with air scoops to channel cooling to the turbo, but unfortunately, it wasn't sufficient, and both cars retired with overheated turbos. It can be suggested that both problems might have been diagnosed in pre-season testing in Brazil, which Brabham chose to miss.





SCUDERIA FERRARI

27. SCUDERIA FERRARI/FERRARI 126 C4-072: Michele Alboreto (I)
10th in qualifying, DNF in race
28. SCUDERIA FERRARI/FERRARI 126 C4-073: René Arnoux (F)
15th in qualifying, DNF in race
T. SCUDERIA FERRARI/FERRARI 126 C4-071

the engine cover. Finally, the rear wing had a central support and two squared (and not rounded as on the Williams for example) mountings for the tiny side wings. Both Ferrari drivers complained of lack of grip throughout practice, and their tyres would frequently be blistered on their return to the pits, hence their very average grid positions. Further more, the turbos were thought to be too small, and therefore not giving enough boost. The first unofficial session was stopped when Arnoux set off his extinguisher when trying to adjust the rear antiroll bar. The Frenchman's car stopped again when on his final qualifying lap on Friday due to a vapour lock, but the twin turbo 1500cc V6 at least had the advantage of excellent torque.

Following Arnoux's electrical failure in Rio, the Ferraris were fitted with Japanese-made batteries at Kyalami. For the same reason, Brembo had modified the brake caliper mountings whose breakage robbed Alboreto of the lead in Rio. These calipers will not stand disc heat of more than 180 degress, which is why Ferrari have stopped using carbon fibre discs. The Marelli-Weber injection system was fitted to all three cars, whereas only Alboreto's had it in Brazil. Two seperate air scoops had been added to

LIGIER-RENAULT

25. LIGIER-LOTO/LIGIER-RENAULT JS23-02: François Hesnault (F)
17th in qualifying, 10th in race
26. LIGIER-LOTO/LIGIER-RENAULT JS23-03: Andrea de Cesaris (I)
14th in qualifying, 5th in race
T. LIGIER-LOTO/LIGIER-RENAULT JS23-01

When the Ligier arrived at Kyalami, both Rio race cars were found to have broken upper front suspension mountings. Whether they had been damaged in transit or had simply broken wasn't certain, but they had to be strengthened prior to the start of practice. But both drivers had persistent understeer, that much more unpleasant because it was so sudden. New suspension geometry will appear on the cars for Zolder. After Thursday's unofficial session revealed that the KKK turbos developed less boost than the Garretts, Gerard Larrousse decided that all Renault V6 engines should be equipped with the American turbos. Hesnault's car was fitted with rather smaller units than those given to Tambay, Warwick and Mansell. Hesnault tested a twin flap rear wing on Friday morning which he reckoned gave him an extra 300 revs. During the final qualifying session, both drivers used De Cesaris's car fitted with this new wing, which allowed them to move up the grid. Hesnault, however, had had a turbo break the previous day.

LOTUS-RENAULT

11. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T-03:
Elio de Angelis (I)
7th in qualifying, 7th in race
12. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T-02:
Nigel Mansell (GB)
3rd in qualifying, DNF in race
T. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T-01

Both Lotuses were fitted with new, bigger SECAM-made water radiators than those seen at Rio. De Angelis and then Mansell tried a rear wing set-up with little side wings on Friday which they decided to keep for the race. Meanwhile, the team has covered all eventualities by varying the equipment it supplies to its drivers. In Brazil, only De Angelis had KKK turbos. At Kyalami, it was Mansell's turn to have the advantage of a larger diameter Garrett model. While neither driver seemed too happy with their Renault's power on the first day of practice, their third and seventh fastest times put the smile back on their faces on Friday.

OSELLA-ALFA ROMEO

24. KELEMATA OSELLA SQUADRA CORSE/OSELLA-ALFA ROMEO FA1F-01: Piercarlo Ghinzani (I)
20th in practice, did not race

than through the side pods. The new Osella, which should make its first appearance at Imola, became the team's sole equipment when Ghinzani crashed heavily in Saturday morning's warm-up, and what wasn't destroyed in the accident was wrecked by the subsequent fire.

Unlike most of the rest of the field, the Osella team took their car home after Rio before going on to Kyalami, in order to do some wind tunnel testing. Consequently, it was one of the more modified of cars: a longer nose cone and different front and rear wings. Cooling for the two Avio turbos feeding the Autodelta-built Alfa Romeo V8 was now through the side of the car, rather

McLAREN-TAG

7. MARLBORO MCLAREN INTERNATIONAL/MCLAREN-TAG MP4-2/02: Alain Prost (F)
5th in qualifying, 2nd in race
8. MARLBORO MCLAREN INTERNATIONAL/MCLAREN-TAG MP4-2/01: Niki Lauda (A)
8th in qualifying, 1st in race
T. MARLBORO MCLAREN INTERNATIONAL/MCLAREN-TAG MP4-2/03

The T-car, unused and non-operational in Brazil, was functioning in its proper role at Kyalami, and it was that car which caught fire when Prost pulled off with broken gear linkage during Thursday morning's session. New heat shields were positioned too close to the turbos, but the flames were quickly put out and the car was soon in use again. This car, like Prost's race car, was fitted with Lockheed twin pot calipers at the front, and McLaren-made units at the rear, while Lauda's had the McLaren models on front and rear. The Porsche-developed TAG V6 engine proved to be slow out of corners, but this was thought to be because the engine's Bosch fuel management system had not compensated for the altitude of the circuit, and although the TAG men reprogrammed the computerised system, this was thought to be more in way of a compromise. The spare car, fitted with smaller KKK turbos than Lauda's, proved to be quicker and so both race cars were fitted with the smaller units for the race.

RENAULT SPORT

15. RENAULT-ELF/RENAULT RE50-03: Patrick Tambay (F)
4th in qualifying, DNF in race
16. RENAULT-ELF/RENAULT RE50-04: Derek Warwick (GB)
9th in qualifying, 3rd in race
T. RENAULT-ELF/RENAULT RE50-02

Renault shipped their cars and equipment out of Brazil as soon as possible after the race and were able to start working on them a whole day before the rest of the teams. However, there were no major modifications on the chassis side, but the team decided to fit large volume Garrett turbos, for practice only, to the cars of Tambay, Warwick, Mansell and de Cesaris. Kyalami is a particularly testing circuit for turbos, in that they have to compensate for the lack of oxygen at 5,580 feet above sea level. It is estimated that they work 15 per cent harder, hence the new Garretts. Tambay had a special qualifying engine and said that these turbos meant a further 100 grammes of turbo pressure, and that in turn meant another three or four mph in top speed. He was badly held up during his quick lap by both Brundle and Prost while Warwick complained of fluctuating turbo pressure. The one piece front wing used in Rio without success wasn't used at all in South Africa, but a revised model might appear in Belgium where there may be a number of other aerodynamic modifications. So that timekeepers and spectators could easily tell the difference between the cars of Tambay and Warwick, the team painted the little winglets the same colour as their drivers overalls: red for Tambay, blue for Warwick.

RAM-HART

9. SKOAL BANDIT RAM AUTOMOTIVE/RAM-HART 02-01: Philippe Alliot (F)
23rd in qualifying, DNF in race
10. SKOAL BANDIT RAM AUTOMOTIVE/RAM-HART 01-03: Jonathan Palmer (GB)
22nd in qualifying, DNF in race

Like a number of other teams, RAM had improved its cars' cooling systems in order to compensate for the rarified air at altitude. Cooling for radiators and intercoolers had been modified and there were louvres in the engine covers. Both cars were fitted with AP calipers and carbon fibre discs. But generally speaking, the first practice day was disastrous for the two RAMs. On the first day, Alliot was fined $3,000 and the crankshaft in Palmer's Hart engine broke. Both drivers were due to qualify in Alliot's newer 02, but then a fuel system problem stopped the second RAM out on the circuit on its first lap, so it was only next day that the drivers qualified. Palmer should have a new aluminium/carbon fibre 02 for Zolder. The difference between his 01 and the 02 is 20 kilos. Meanwhile, John Macdonald is considering building a new car which could appear at Monaco. Designed by Dave Kelly, it will have a smaller and squatter fuel tank which should in turn mean better aerodynamics.

SPIRIT-HART:

21. SPIRIT RACING/SPIRIT-HART
Mauro Baldi (I)
21st in qualifying, 8th in race

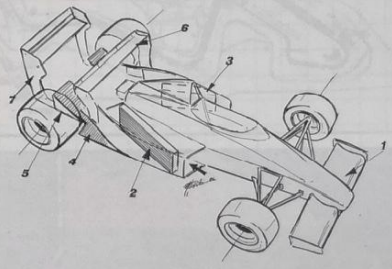
The Spirit 101B was modified in that its underbodywork had been shortened in comparison to that seen in Brazil. In Rio, the rear wing was mounted on the back end of this bodywork, but the wing had a central support at Kyalami. In Belgium, new pull rod suspension will replace the current rockers. Baldo stopped on his qualifiers on Friday due to an accelerator cable problem.

TOLEMAN-HART

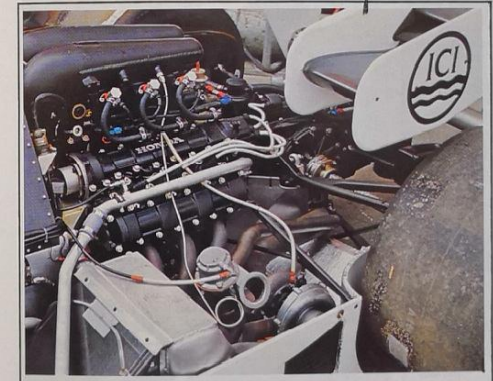
19. TOLEMAN GROUP MOTORSPORT/TOLEMAN-HART TG183B-05: Ayrton Senna (BR)
13th in qualifying, 6th in race
20. TOLEMAN GROUP MOTORSPORT/TOLEMAN-HART TG183B-05: Johnny Cecotto (YV)
19th in qualifying, DNF in race
T. TOLEMAN GROUP MOTORSPORT/TOLEMAN-HART TG183B-03

The Tolemans were unmodified in Kyalami, for the team is concentrating on the new TG184s of which only one is ready to be tested and this should go first to Silverstone for pre-Monaco testing, and then to Imola prior to the Belgian Grand Prix. Just who will be driving it at Zolder isn't entirely certain, although Senna is favourite for the seat. Unofficial practice wasn't good for the Tolemans: Senna had an engine break, and Cecotto crashed at Barbecue and a suspension arm damaged his monocoque, forcing him to use the spare car for the rest of the weekend. Holset had found the reason for the turbo breakages in Rio (faulty turbine material) and had duly put things right.

The new Toleman has a conventional nose shape (1) but front suspension similar to that of the TG183. The water radiator (2) and intercooler (3) are slanted in the opposite direction to most cars in order to limit the size of the car.



But the water radiators, at 70cms, are the longest of any F1 car. Bodywork inside the rear wheels (like the McLarens) is extremely narrow. The second rear wing (7) is actually mounted on the extreme rear end of the underbody. The twin wing set-up remains (6) but in modified form. The carbon fibre monocoque is essentially the same as the previous car's.



WILLIAMS-HONDA

5. WILLIAMS GRAND PRIX ENGINEER/WILLIAMS-HONDA FW09-03: Keke Rosberg (SF)
11th in qualifying, DNF in race
6. WILLIAMS GRAND PRIX ENGINEERING/WILLIAMS-HONDA FW09-04: Jacques Laffite (F)
2nd in qualifying, DNF in race
T. WILLIAMS GRAND PRIX ENGINEERING/WILLIAMS-HONDA FW09-05

The Williams team had worked on their suspension since their handling problems in Rio, and this despite Patrick Head suffering a very nasty bout of food poisoning on his return from Brazil. The suspension geometry at the front had been modified, as well as the rear suspension set-up, while more changes are expected for Zolder. At Kyalami, the rear wing was mounted higher than at Rio as it was flatter. In six weeks, Williams will have its own autoclave which will allow them to make their own carbon fibre parts, and it's even suggested that they might have their own carbon fibre chassis before the end of the season. An interesting change in the Williams pit is the replacing of the Saudi Arabian flag in the pits with the Japanese flag flying alongside the Union Jack, in honour of their Honda engine suppliers. The Williams still understeered as in Rio, but it was less serious at Kyalami due to the nature of the circuit. Keke was bumped off pole position on Friday by Piquet, and made a mistake on his own spectacular quick lap. Laffite suffered electric problems throughout practice, but neither driver finished the race. Both held positions in the top three, but Rosberg retired with a broken driveshaft coupling, and Laffite had a wheel fall off.

TYRRELL-COSWORTH

3. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012-3: Martin Brundle (GB)
26th in qualifying, 11th in race
4. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012-2: Stefan Bellof (D)
25th in qualifying, DNF in race
T. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012-1.

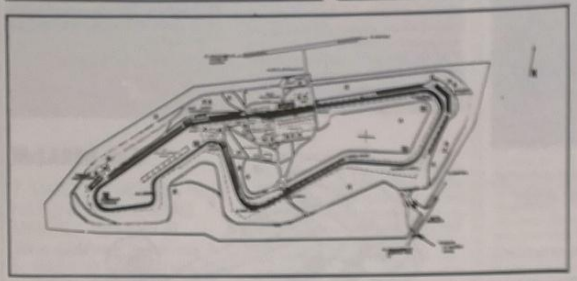
The only change to the Tyrrells was that their big wings complete with winglets had been taken off and replaced by a more conventional wing for fast circuits. Brundle tried one of the team's larger wings, but found that he lost 300 revs in a straight line. He also estimated that because of the altitude, his car's DFY was only developing around 440 bhp. Bellof's fastest lap was set thanks to Manfred Winkelhock who gave him a tow down the straight. The Tyrrells are still bare of sponsorship, although Bellof's sponsors are still deciding the size and position of their stickers. The German's 012 will be in new colours at Zolder, while the Englishman's car will remain blue.

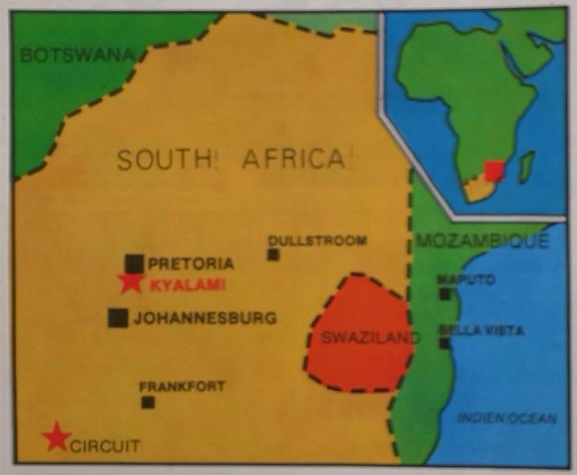
SOUTH AFRICAN GRAND PRIX

Date: April 7, 1984
Circuit length: 2.564 miles (4.103 km)
Circuit: Kyalami
Race distance: 75 laps, 192.4 miles (307.8km)
Weather: humid, sunny periods
Attendance: 40,000

PREVIOUS WINNERS

(last five races)
1979: Villeneuve (Ferrari)
1980: Arnoux (Renault)
1981: Reutemann (Williams-Ford)*
1982: Prost (Renault)
1983: Patrese (Brabham-BMW)
* Not competing at this time.





OFFICIAL QUALIFYING TIMES

	Untimed practice 1	Timed practice 1	Untimed practice 2	Timed practice 2	Warm-up Saturday
1. PIQUET	1:06.972	1:05.280	1:07.457	1:04.871	1:08.583
2. FABI	1:08.306	1:05.923	1:08.337	1:07.236	1:09.080
3. BRUNDLE	1:12.807	1:12.233	1:12.646	1:12.453	1:14.268
4. BELLOF	1:13.015	1:12.322	1:12.732	1:12.022	1:14.364
5. LAFFITE	1:09.239	1:07.142	1:11.086	1:06.762	1:11.934
6. ROSBERG	1:08.282	1:05.127	1:09.410	1:05.058	1:11.566
7. PROST	1:07.791	1:06.576	1:09.199	1:05.354	1:09.270
8. LAUDA	1:07.848	1:06.238	1:08.467	1:06.043	1:08.992
9. ALLIOT	1:12.689		1:12.350	1:10.619	1:15.924
10. PALMER	1:13.919		1:13.105	1:10.383	1:15.995
11. DE ANGELIS	1:07.702	1:06.305	1:09.403	1:05.953	1:10.488
12. MANSELL	1:07.551	1:05.792	1:08.463	1:05.125	1:10.865
14. WINKELHOCK	1:08.318	1:06.974	1:12.293	1:07.417	1:12.925
15. TAMBAY	1:06.752	1:05.588	1:06.431	1:05.339	1:11.152
16. WARWICK	1:07.621	1:06.056	1:08.444	1:06.491	1:11.169
17. SURER	1:13.617	1:12.227	1:14.975	1:11.808	1:15.697
18. BOUTSEN	1:13.225	1:12.326	1:13.838	1:12.274	
19. SENNA	1:10.824	1:07.657	1:09.727	1:06.981	1:11.994
20. CECOTTO	1:11.256	1:09.892	1:09.555	1:08.298	1:11.925
21. BALDI	1:11.452	1:10.450	1:11.876	1:09.923	1:15.072
22. PATRESE	1:10.331	1:08.399	1:13.023	1:08.042	1:13.567
23. CHEEVER	1:09.129	1:07.704	1:10.995	1:07.993	1:12.426
24. GHINZANI	1:12.218	1:10.829	1:11.553	1:09.609	1:13.531
25. HESNAULT	1:11.733	1:09.909	1:09.776	1:07.787	1:12.492
26. DE CESARIS	1:09.168	1:09.132	1:09.731	1:07.245	1:12.154
27. ALBORETO	1:09.430	1:07.404	1:10.161	1:06.323	1:11.275
28. ARNOUX	1:08.716	1:07.514	1:11.131	1:07.345	1:10.530

STARTING GRID

ROSBERG Williams FW09-Honda 1:05.058		PIQUET Brabham BT53-BMW 1:04.871	
	TAMBAY Renault RE50 1:05.339		MANSELL Lotus 95T-Renault 1:05.125
FABI Brabham BT53-BMW 1:05.923 (1)		PROST McLaren MP4/2-TAG 1:05.354	
	LAUDA McLaren MP4/2-TAG 1:06.043		DE ANGELIS Lotus 95T-Renault 1:05.953
ALBORETO Ferrari 126 C4 1:06.323		WARWICK Renault RE50 1:06.056 (1)	
	WINKELHOCK ATS D7-BMW 1:06.974 (1)		LAFFITE Williams FW09-Honda 1:06.762
DE CESARIS Ligier JS23-Renault 1:07.245		SENNA Toleman TG183B-Hart 1:06.981	
	CHEEVER Alfa Romeo 184T 1:07.704 (1)		ARNOUX Ferrari 126 C4 1:07.345
PATRESE Alfa Romeo 184T 1:08.042		HESNAULT Ligier JS23-Renault 1:07.787	
	BALDI Spirit 101B-Hart 1:09.923		CECOTTO Toleman TG183B-Hart 1:08.298
ALLIOT Ram 02-Hart 1:10.619		PALMER Ram 01-Hart 1:10.383	
	BELLOF Tyrrell 012-Cosworth 1:12.022		SURER Arrows A6-Cosworth 1:11.808
BOUTSEN Arrows A6-Cosworth 1:12.274		BRUNDLE Tyrrell 012-Cosworth 1:12.233 (1)	

Ghinzani, non-starter because of his accident during warm-up, set the 20th time in 1m09.609
(1) Denotes drivers who obtained their qualifying times during Thursday's timed practice.

THEIR FASTEST RACE LAPS

TAMBAY	1:08.877	on lap	65
PROST	1:08.961	on lap	33
WARWICK	1:09.526	on lap	59
LAUDA	1:09.666	on lap	63
PIQUET	1:10.132	on lap	06
DE ANGELIS	1:10.150	on lap	43
FABI	1:10.345	on lap	06
ROSBERG	1:10.600	on lap	39
PATRESE	1:11.385	on lap	44
ARNOUX	1:11.421	on lap	12
LAFFITE	1:11.790	on lap	06
MANSELL	1:11.825	on lap	16
ALBORETO	1:11.828	on lap	04
SENNA	1:12.124	on lap	71
BELLOF	1:12.424	on lap	02
DE CESARIS	1:12.510	on lap	07
CECOTTO	1:12.523	on lap	11
WINKELHOCK	1:12.527	on lap	05
HESNAULT	1:13.054	on lap	05
BALDI	1:13.267	on lap	69
BRUNDLE	1:13.578	on lap	30
CHEEVER	1:14.046	on lap	03
SURER	1:14.090	on lap	67
BOUTSEN	1:14.906	on lap	57
PALMER	1:14.927	on lap	14
ALLIOT	1:14.943	on lap	15

DRIVERS' WORLD CHAMPIONSHIP POINTS

	BRAZIL	SOUTH AFRICA	BELGIUM	SAN MARINO	FRANCE	MONACO	CANADA	DETROIT	DALLAS	GREAT BRITAIN	GERMANY	AUSTRIA	HOLLAND	ITALY	EUROPE	SPAIN	TOTAL
1. PROST	9	6															15
2 LAUDA		9															9
3. ROSBERG	6																6
4. DE ANGELIS	4																4
- WARWICK		4															4
6. CHEEVER	3																3
- PATRESE		3															3
8. BRUNDLE	2																2
- DE CESARIS		2															2
10. TAMBAY	1																1
- SENNA		1															1

CONSTRUCTORS' WORLD CHAMPIONSHIP POINTS

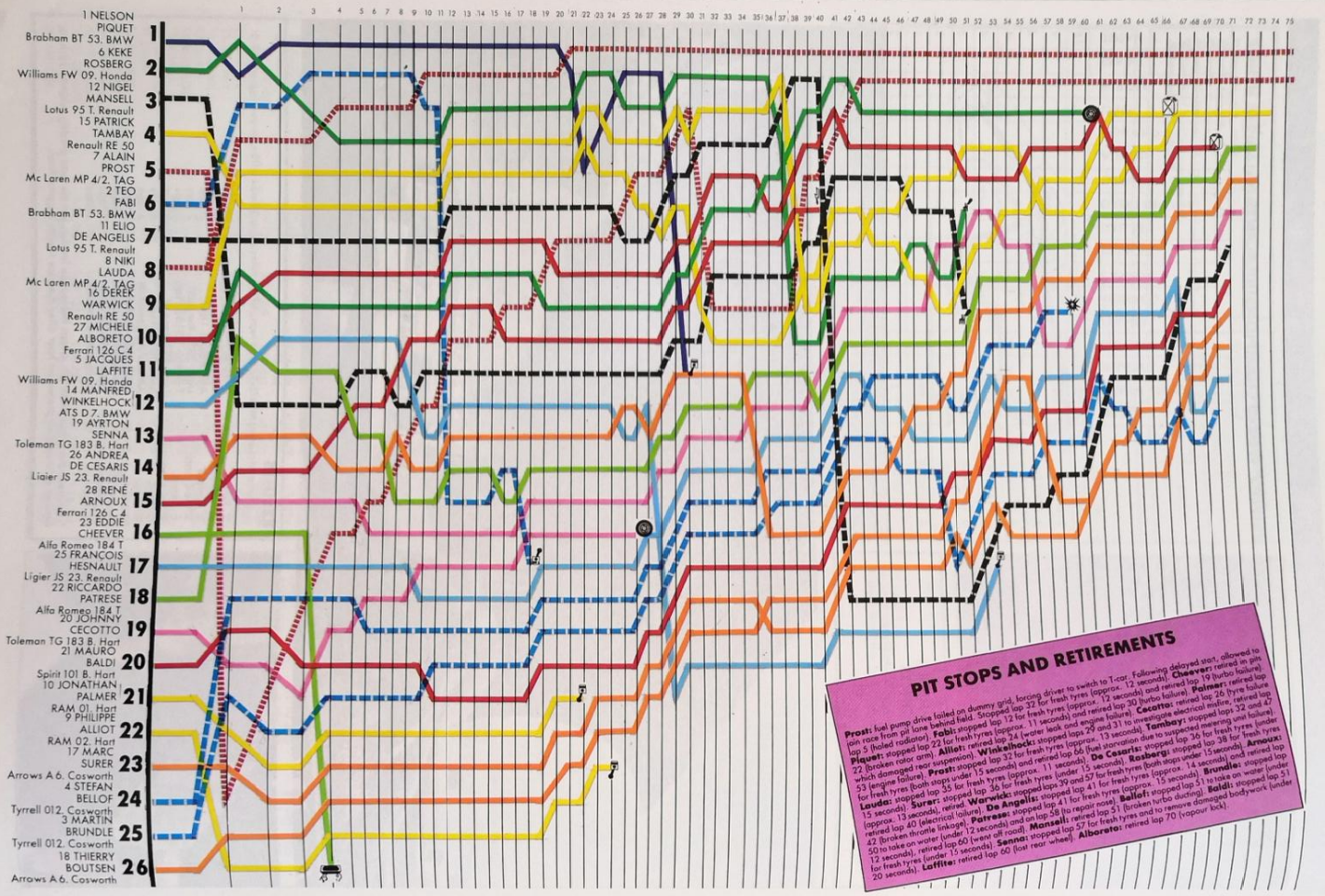
1. McLaren 24 pts; 2. Williams and Alfa Romeo 6 pts; 4. Renault 5 pts; 5. Lotus 4 pts; 6. Tyrrell and Ligier 2 pts; 8. Toleman 1 pt.

RESULTS

1. Lauda (McLaren) MP4/2-TAG 75 laps, 192.4 miles in 1 h 29m34.492 s, an average of 129.1 mph.

2. Prost	McLaren MP4/2-TAG	1m 05.950s
3. Warwick	Renault RE50	1 lap
4. Patrese	Alfa Romeo 184T	2 laps
5. De Cesaris	Ligier JS23-Renault	2 laps
6. Senna	Toleman TG183-Hart	3 laps
7. De Angelis	Lotus 95T-Renault	4 laps
8. Baldi	Spirit 101B-Hart	4 laps
9. Surer	Arrows A6-Cosworth	4 laps
10. Hesnault	Ligier JS23-Renault	4 laps
11. Brundle	Tyrrell 012-Cosworth	4 laps
12. Alboreto	Ferrari 126 C4	5 laps
13. Boutsen	Arrows A6-Cosworth	5 laps*

* Boutsen, did in fact finish 9th, 4 laps behind the leader, but his final placing remains 13th as Arrows entered their protest an hour after the race results became final.


1 NELSON PIQUET Brabham BT 53. BMW
6 KEKE ROSBERG Williams FW 09. Honda
12 NIGEL MANSELL Lotus 95 T. Renault
15 PATRICK TAMBAY Renault RE 50
7 ALAIN PROST Mc Laren MP 4/2. TAG
2 TEO FABI Brabham BT 53. BMW
11 ELIO DE ANGELIS Lotus 95 T. Renault
8 NIKI LAUDA Mc Laren MP 4/2. TAG
16 DEREK WARWICK Renault RE 50
27 MICHELE ALBORETO Ferrari 126 C 4
5 JACQUES LAFFITE Williams FW 09. Honda
14 MANFRED WINKELHOCK ATS D 7. BMW
19 AYRTON SENNA Toleman TG 183 B. Hart
26 ANDREA DE CESARIS Liaier JS 23. Renault
28 RENÉ ARNOUX Ferrari 126 C 4
23 EDDIE CHEEVER Alfa Romeo 184 T
25 FRANCOIS HESNAULT Ligier JS 23. Renault
22 RICCARDO PATRESE Alfa Romeo 184 T
20 JOHNNY CECOTTO Toleman TG 183 B. Hart
21 MAURO BALDI Spirit 101 B. Hart
10 JONATHAN PALMER RAM 01. Hart
9 PHILIPPE ALLIOT RAM 02. Hart
17 MARC SURER Arrows A 6. Cosworth
4 STEFAN BELLOF Tyrrell 012. Cosworth
3 MARTIN BRUNDLE Tyrrell 012. Cosworth
18 THIERRY BOUTSEN Arrows A 6. Cosworth
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

PIT STOPS AND RETIREMENTS

Prost: fuel pump drive failed on dummy grid, forcing driver to switch to T-car. Following delayed start, allowed to join race from pit lane behind field. Stopped lap 12 for fresh tyres (approx. 12 seconds); **Cheever:** retired in pits lap 5 (holed radiator). **Fabi:** stopped lap 12 for fresh tyres (approx. 11 seconds) and retired lap 19 (turbo failure). **Piquet:** stopped lap 22 (broken rotor arm). **Alliot:** retired lap 24 (water leak and engine failure). **Cecotto:** retired lap 30 (turbo failure). **Palmer:** retired lap 22 (broken rear suspension). **Winkelhock:** stopped lap 32 for fresh tyres (approx. 12 seconds) and retired lap 66 (fuel starvation due to suspected metering unit failure). **Tambay:** stopped lap 26 (engine failure). **Prost:** stopped lap 35 for fresh tyres (approx. 11 seconds). **De Cesaris:** stopped lap 36 for fresh tyres (approx. 15 seconds) and retired lap 53 (engine failure). **Rosberg:** stopped lap 36 for fresh tyres (under 15 seconds) and retired lap 57 for fresh tyres (approx. 15 seconds). **Arnoux:** stopped lap 38 for fresh tyres (both stops under 15 seconds). **Lauda:** stopped lap 36 for fresh tyres (under 15 seconds). **Surer:** retired lap 36 (electrical failure). **Warwick:** stopped lap 41 for fresh tyres (approx. 13 seconds). **De Angelis:** stopped lap 41 for fresh tyres (approx. 13 seconds) and retired lap 42 (broken throttle linkage). **Patrese:** stopped lap 41 for fresh tyres (approx. 14 seconds) and on lap 58 to repair nose). **Bellof:** stopped lap 51 (broken turbo ducting). **Brundle:** stopped lap 21 for fresh tyres (under 15 seconds) and retired lap 50 (went off road). **Mansell:** retired lap 57 for fresh tyres and to remove damaged bodywork (under 12 seconds), retired lap 60 (went off road). **Baldi:** stopped lap 51 to take on water (under 20 seconds). **Laffite:** retired lap 60 (lost rear wheel). **Alboreto:** retired lap 70 (vapour lock).

A WHIFF OF METHANOL

THE MAN TOOK A LONG HOLLOW, CURVED TUBE, HELD BY A POLE AND BROUGHT IT CLOSER TO THE HUGE EXHAUST PIPE. THE VERY MOMENT THE COSWORTH TURBO ROARED TO LIFE, HE QUICKLY POINTED ITS END SKYWARDS. A WISE PRECAUTION. METHANOL VAPOURS CAN BURN YOUR EYES AND THROAT EVEN ASPHYXIATE YOU. LONG BEACH HAS TAKEN ON A NEW LOOK, AND A WEIRD REVOLUTION HAS GIVEN THE AIR A DIFFERENT SMELL. FORMULA 1 HAS GIVEN WAY IN CALIFORNIA TO CART.

by Didier Braillon

Saturday afternoon: Guerrero blunders (see Cockpits) and Rahal, riding his slipstream, cannot avoid an accident. (photo: Taylor/DPPI; previous double-page spread: Foulon/DPPI)

A graduate of the "old school", an oval-track specialist, Gordon Johncock in his Wildcat PR9. (photo: Foulon/DPPI)

The whole affair came out into the open one sunny Saturday. It was the eve of the 1983 Formula 1 Grand Prix. Setting: the long white Race Control caravan, behind the pits, back of Shore-line Drive. Protagonists: Chris Pook, silvery hair and beard, stentorian voice, and Bernie Ecclestone, his eyes squinched up behind his gold-framed glasses. The Long Beach man didn't intend to split hairs. He made it known to the FOCA head that he had just signed an agreement with CART for 1984. Duration of the new contract: three years firm, with a possible three-year extension. Bernie immediately offered to lower the cost of the Formula 1 circus. In vain. Pook remained unbending: *"Bringing CART to Long Beach costs me $500,00. It would have cost me $2,150,000 to continue with Formula 1"*.

CHRIS POOK: 'BRINGING CART TO LONG BEACH COSTS ME $500,000. IT WOULD HAVE COST ME $2,150,000 TO CONTINUE WITH FORMULA 1

Last year's Long Beach Grand Prix necessitated 80,00 paying spectators to break even. This time, only 50,000 were needed. A daring gamble that was in fact a calculated risk, which he explained in harsh broken French, a forced enthusiasm coming through. *"CART is in an excellent position. The political problems in Formula 1 have become really dreadful. A few weeks before the South African Grand Prix, no one really knew if the race would take place. The World Championship is no longer credible"*.

So what exactly is CART? If you take into account the brochure published by PPG, the sponsor of the series, it is unquestionably no less than number 1 in world motorsport. The editor of this certainly doesn't mince his words: *"Today's Indy cars are the fastest and most sophisticated racing machines in the world, capable of speeds greater that 200 mph on long straightaways and of lap averages of 213 mph or better. No other cars in racing, including the widely-publicized Formula One (World Grand Prix) cars, can even come close to approaching these speeds"*.

There follows alleged maximal-speed tests duing which a Wildcat Indy went 212 mph and a Renault, the fastest in Formula 1, 169 mph. Notions of downforce or gearbox ratios were not even taken into account by the publicity man nor the fact that the Indianapolis oval track doesn't quite compare with the Monaco street circuit... CART does try, however, to not seem obsessed by Formula 1. It is true that after the Long Beach "deal" its directors, including John Frasco, Roger Penske and Pat Patrick, can enjoy a modest victory. The California track, has unfortunately changed. A corner has been redesigned, a hairpin changed places, a chicane done away with altogether, a straight reduced in length so now we'll never know just how many seconds would have separated the single seater CARTs from the Grand Prix monocoques. And given the growing group of drivers, team managers and engineers having Formula 1 experience,

'TODAY'S INDY CARS ARE THE FASTEST AND MOST SOPHISTICATED RACING MACHINES IN THE WORLD'

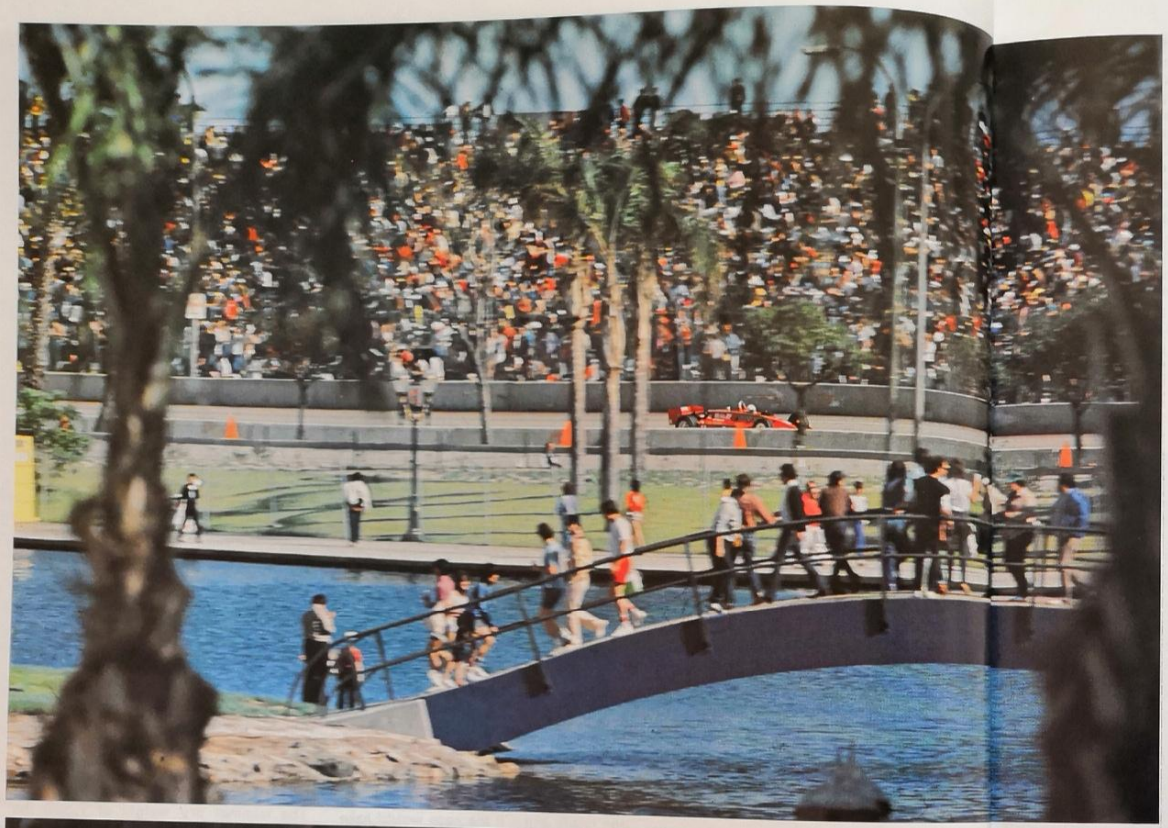
the difference is impossible to put into figures. It could be 4 seconds, or perhaps 10. This is undoubtedly a volontary refusal to make a comparison under identical conditions, even if Chris Pook states that only his decision, along with that of the town of Long Beach, led to choosing a different circuit. Any effort in comparison would moreover have been purely academic. Formula 1 is a world where tyres, chassis and engines are the pawns in gigantic technical wars, pushing the driver into the background. CART uses a completely different approach. Identical, hard Goodyear tyres for everyone, preset boost pressure for Cosworth engines, used by almost all the drivers, and less sophisticated chassis. As a result of the incredible commercial success of March, it is almost a monotype formula.

For those whom the World Championship recently foresook, the difference is a big one: *"The CART single seaters put the drivers' skills into evidence"* says Emerson Fittipaldi. *"The cars are tough to handle and they react very much in the same way as a Formula 1 with a full tank"*.

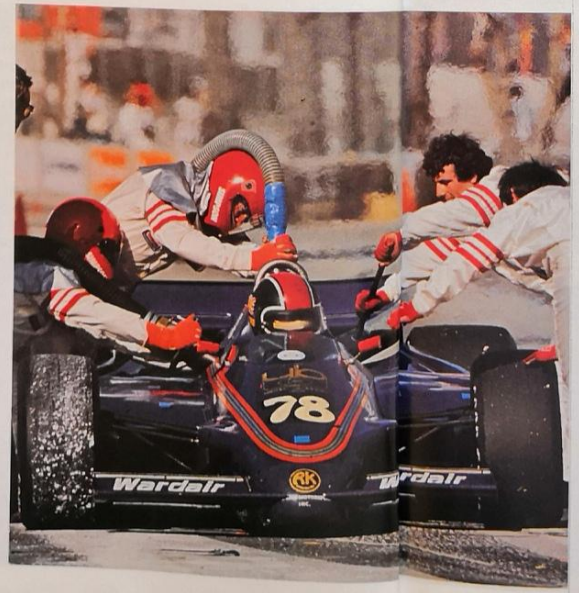
The minimal dry weight of 1,500 lbs (679,5 kg) for the Cosworth driven cars is keenly felt by Teo Fabi, who has come straight back from the Brazil Grand Prix: *"The power of these engines is similar to Formula 1 in a race, but everything else is different. In Grand Prix single seaters, the weight is centred much more to the back. The reaction time is immediate. In this case, the steering is rather heavy, the tyres have barely any grip, and the car is extremely unstable when braking. In the end, it's a lot less enjoyable, but good driving skills pay off immediately"*.

DANY HINDENOCH: 'LIGIER-CURB HAS A BUDGET OF $1.7 MILLION FOR THIS SEASON, FOR ONE CAR'

A land of exile for expelled Formula 1 drivers, the 1984 CART Championship is doted with $10 million of prize money. Heavenly manna descends upon the competitors who finish each race. The dark side of the picture shows the beginnings of an arms race caused by the arrival of foreign



A wonderful town, each day more beautiful, CART was fortunate in coming to Long Beach. (photo: Foulon/DPPI)



The Ligier-Curb (left) driven by Kevin Cogan; a faulty half-shaft put him out of the race after the third lap. But Jim Crawford's Theodore (right) finished a magnificent 4th. (photo: Foulon/DPPI)

drivers and constructors onto the scene. Some March customers take their single seaters through the wind tunnel, and the best teams practise a lot during the off season. Private testing until these last months was something practically unheard of. *Ligier-curb has a budget of $1.7 million for this season, for one car'', revealed Dany Hindenoch, promoted to the post of team manager. ''That includes research expenses, the building of the single seaters and getting set up in California. We've had to buy a lorry, a complete panoply of machines and tools and find premises. An already-existing team using Marches should be competitive with $1 million per car''.*

TEO FABI: 'THE STEERING IS RATHER HEAVY, THE TYRES HAVE BARELY ANY GRIP AND THE CAR IS EXTREMELY UNSTABLE WHEN BRAKING'

How to buy a March? Nothing easier: first get hold of a turbo-Cosworth —$50,000 for a fully equipped engine, $38,000 for just the block, $18,000 for complete rebuilding — and send it along with $40,000 to Bicester in England. In just a few weeks time you will receive a carefully packed, complete 84C.

Can the cost of a season in CART be compared with a season in F1? Nothing could be easier, even though the parallel does seem a little artificial:

''$7 million per car is needed to obtain good results in Grand Prix,'' sums up Dany Hindenoch. ''If the Ligier-Curb is considered as a special case, and the average annual cost of a competitive March is used as a basis, it is very easy to calculate: CART costs three and a half times less than Formula 1. Or if you prefer, CART costs what Formula 1 used to cost during 1978-80 before turbo-engines were brought in and until they overtook the normally-aspirated Cosworths''.

The quality-to-price ratio has thus remained attractive. Although they are obviously not as fast as Formula 1 within a 5% to 15% bracket for a total investment some 350% less, there is nothing to be ashamed of. The fact of changing from a World Championship to a simple National Championship, which remains usanctioned by FISA, has to be accepted. Roberto Guerrero now settled in San Juan Capistrano in California might have suffered the consequences:

''When it was made known in Columbia that I was going to take part in CART, it was deduced that I was taking a step backwards. The critics fell upon me and wrote that I wasn't good enough to stay in Grand Prix''.

Roberto didn't say anythig, and swallowed his pride. He got his own back by capturing pole position on the first day of trials, which alas, he was unable to defend the next day.

During a fast lap, he lightly touched the inside wall of the left turn just before the

ROBERTO GUERRERO: 'THE CRITICS FELL UPON ME AND WROTE THAT I WASN'T GOOD ENOUGH TO STAY IN GRAND PRIX'

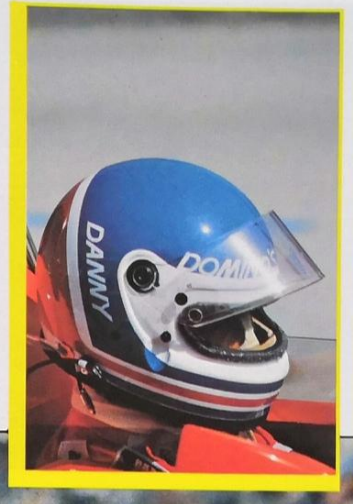
tunnel with his front wheel. The March was thrown from one side of the track to the other hitting the opposite wall violently. But that wasn't what counted: *''When the press agencies broadcasted the news of my best time yesterday, Columbia apparently went crazy. It's a country where views change quickly''.*

It's risky to forget what you adored yesterday. Feelings vary over a whole range at Long Beach. Interest in a new world. Astonishment at seeing the, as yet unsuspected in Europe, quickly growing competitivity. Disappointment as a result of too many cow-boy toughs. Indignation caused by unnecessary restrictions around the circuit. Resignation during a race which for some obscure reason was twice as long as needed. In no way should one say that CART is only a show as a street race, compared with Formula 1.

EMERSON FITTIPALDI: 'THE CART SINGLE SEATERS PUT THE DRIVERS' SKILLS TO THE TEST'

These two worlds are completely dissimilar and only a few strings hold them together on some rare points, thus keeping them from completely drifting apart.

For qualifying sessions at Long Beach, there were 39 cars for 28 place on the grid, 24 were for the best times, and four were promised to unqualified drivers, chosen entirely at the organizer's discretion. Sitting in this same white Race Control caravan, where a year earlier he had to face Bernie Ecclestone, Chris Pook made a snap decision. The drivers having obtained the 25th and 26th times would take part in the race along with a Wildcat sponsored by Stroh's Beer, a fellow Grand Prix sponsor, and a veteran of half a century who put a great deal of effort into the promotional pre-race activities. They were given to the cars qualifying 30th and 33rd. When the team managers of the cars passed over, pushed open the door of the caravan to find out the reasons for this choice, no hard feelings were felt concerning their questions. They accepted the king's decision without a murmur. Can you imagine John Macdonald, Enzo Osella or Jackie Oliver acting out the same scene? You can be sure that CART is not and will never be Formula 1! □

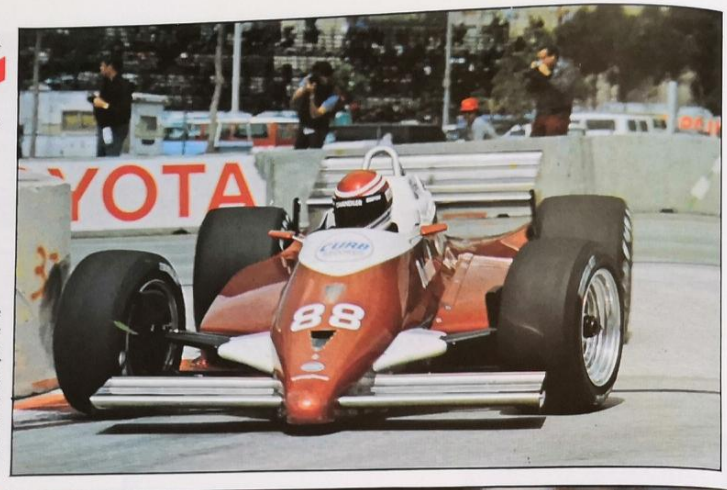


Danny Sullivan (in helmet, top left) is an old Tyrrell hand and is now driving thanks to Doug Shierson. Teo Fabi (March number 33), for his part, is the only driver who can boast of notoriety in both of the top single-seater sports. Indeed, he drives one of Bernie Ecclestone's Brabham BT53-BMWs in the World F1 Championship. (photos: Stephane Foulon/DPPI)

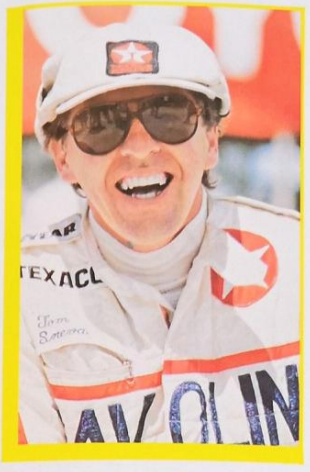
THE ALTERNATIVE

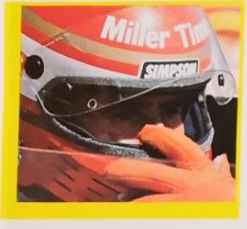
Long a closed society, the specialists of Formula Indy are now opening their doors to strangers and welcoming those passed over by F1. Today, CART is expanding in a way never thought possible a year ago. Jacques Villeneuve (March number 76) almost got another chance in Grand Prix racing. But rather than set up a Formula One team in a hurry, Canadian Tire preferred to turn to the States. Roberto Guerrero (in helmet, top right) who drives the March number 9, comes from Theodore and Bruno Giacomelli (Theodore number 44) is a veteran at Toleman. For the first day of trials their performances were magnificent and they classed in the first row of the starting grid.

AMERICAN COCKTAIL

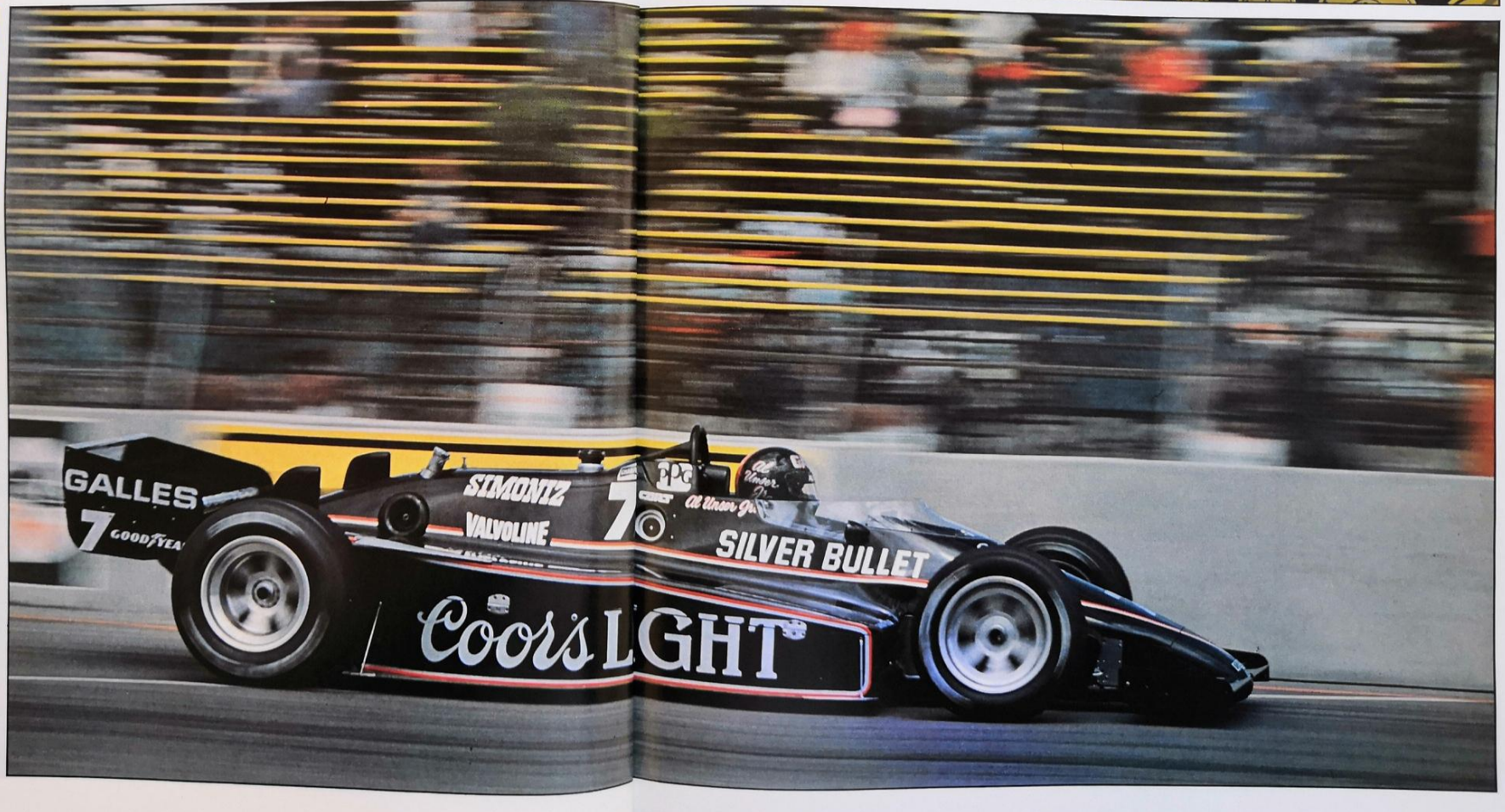


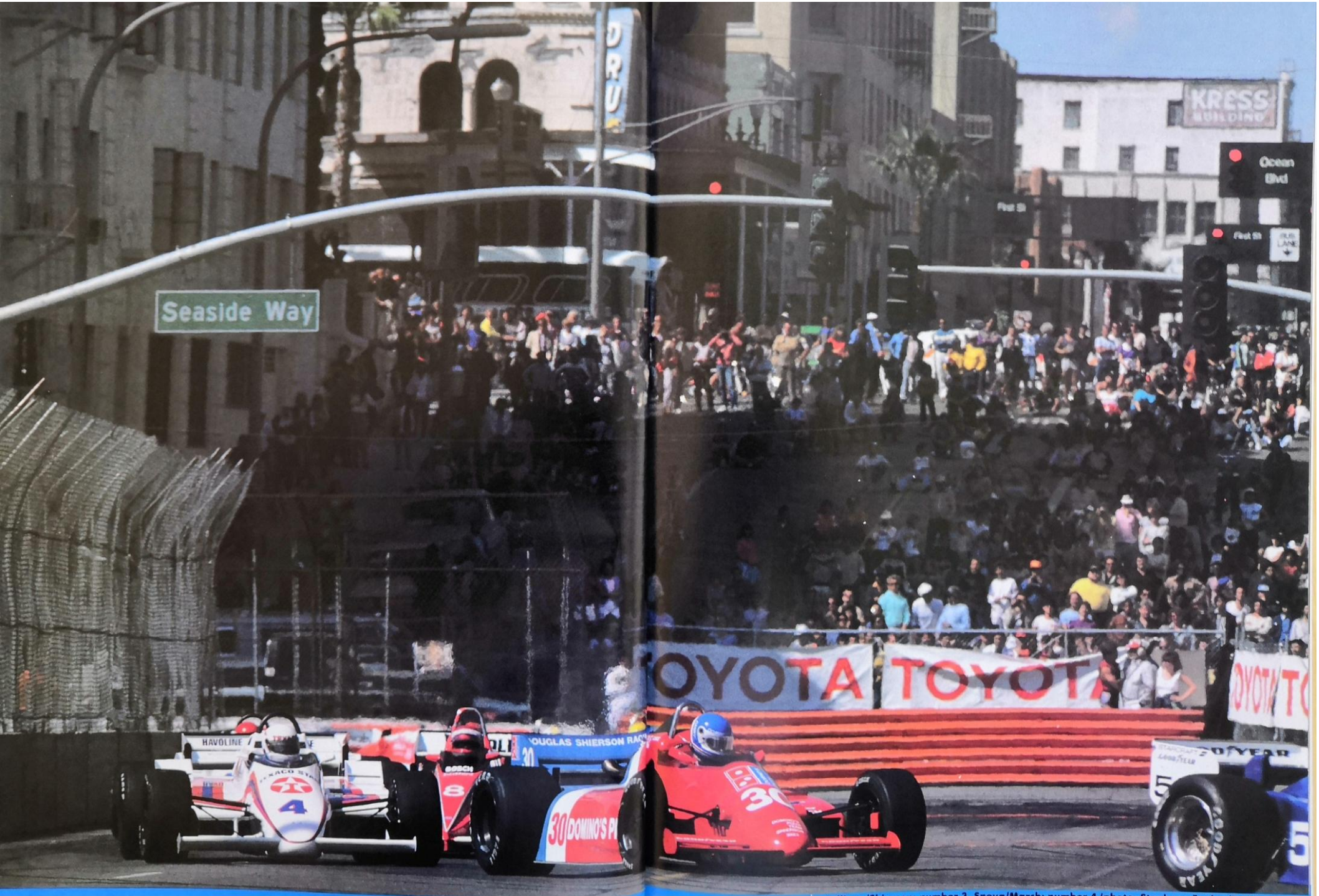
Motorsport skill in the United States has the peculiarity of being an inherited trait. CART Championships not withstanding. Al Unser Sr (below) is fortunate enough to have a son, Al Unser Jr, who has all, or most, of his own talents.





"Little Al" (March number 7) at 22, already has the maturity of a great champion. Which is also the case with Michael Andretti, even to the point of having a helmet identical to his father's. As for Michael Chandler, things are somewhat different (Eagle number 88). His father is not a driver, but the owner of a gigantic newspaper empire. Wealth and talent sometimes go together, as he proved by staying in 2nd place for so long during the race. But finally behind Mario Andretti, it was Tom Sneva (photo) who excelled at Long Beach. His difficulties on street circuits are now ancient history... (photos: Stephane Foulon/DPPI)





Sullivan/Shierson: number 3, Sneva/March: number 4 (photo: Stephane Foulon/DPPI)

BLOOD IN THEIR EYES, 750-HORSEPOWER MONSTERS INVADE THE CITY STREETS, SWEPT IN METHANOL FUMES

Emerson Fittipaldi/March (photo: Stephane Foulon/DPPI)

REFUELLING MAGIC — NO MORE A PART OF THE SPECTACLE OF F1, BUT CART GOES ON WITH THE SHOW

Rick Mears/Penske (photo: Stephane Foulon/DPPI)

HARD TYRES ALL AROUND MEANS SIDE- SLIPPING THROUGH THE TURNS, AND OPPOSITE LOCK IS KING

Dick Simon/March (photo: David Taylor/DPPI)

THE THREAT OF FIRE IS PART OF THE GAMBLE, AND WHEN AN ENGINE BLOWS YOU GET OUT FAST

Gordon Johncock/Wildcat (photo: Stephane Foulon/DPPI)

THERE'S NO TIME FOR RUBBERNECKING WHEN DRIVING AT LONG BEACH, EVEN ON THE SHORELINE DRIVE HAIRPIN

THE LONER

THE QUEEN MARY LIES PEACEFULLY AT ANCHOR, ITS HULL ADORNED WITH A PATINA OF ALGAE. IN DAYS GONE BY, IT WAS THE SHOWPIECE OF THE CITY; today, it's just another attraction. In less than a decade, what used to be a seedy seaport town has now grown into an immense residential complex, squeaky clean. Since last year, a hotel has sprung up smack in the middle of it all, bordered by a tiny lake where you can see gondolas cruising. More and more streets are reserved to pedestrians, and there is even a seaside shopping centre. Shoreline Village, its fisherman bungalows built in the style of another century, dominates one side of Ocean Boulevard and is opposite the marina, filled with splendid yachts. The Long Beach CART Grand Prix is certainly worthwhile, if for nothing else than the decor.

Mario Andretti couldn't help looking bored as he climbed out of his Lola under the watchful gaze of Paul Newman and Carl Haas, a cold stogy crammed into the corner of his mouth. His unperturbed run had lasted two and a quarter hours. Which seemed like forever: *"I felt so alone out there on the track,"* he smiled. *"I really would have loved someone to talk to."* World Champion in 1978, this Italian-American, many rings on his fingers, knows the ropes of Indy-car racing, inside out. A starter 236 times, a winner 37. It's the voice of experience that speaks when he insists on the tremendous work done by the reserved Briton to whom he owes his success. *"Nigel Bennett has managed to construct a single seater that performed remarkably well, right from the word go. The experience he has brought from F1 is nothing short of invaluable".*

But next door to the trouble-free Lola camp, the mood is not so cheery. All of them, or almost all, lost the use of one or more of their gear ratios before the chequered flag. Watched by the ever-agitated Latino from Florida, Pepe Romero, Emerson Fittipaldi let fly a long string of expletives in Portuguese. *"When I came in to refuel on the 37th lap, my tank was already dry. It was the same thing at the end of the race, too. But if I hadn't lost second, you can be sure I would have finished number 2. Putana!"* For his part, Jacques Villeneuve, his long hair tussled, had the same complaint. *"My car was the only March with a 4-speed Weismann gearbox. That's OK for ovals, but here its crazy. The last ten laps were pretty shaky. It kept popping out of first and second whenever I let up on the pedal. I had to drive with one had, and hold the shift lever with the other. I was even using my knee to help hold the wheel."*

Tom Sneva, who placed 3rd in the race, ended up being one of the rare drivers who has nothing to grouse about. Along with Al Unser Sr, Gordon Johncock, and Rick Mears, he is one of those great American drivers who cut their teeth on oval circuits. Just a year ago, when he climbed into the cockpit of a Grid-Cosworth at the IMSA Miami Grand Prix, it was only to spin out at the first turn, without knowing why. Indeed, he didn't even know what double-clutching meant. Today, his style is worthy of admiration. Maybe the old professor has simply been going to night school.

Didier Braillon

Mario Andretti/Lola (photo: Stéphane Foulon/DPPI)

LOLA

NEWMAN-HASS RACING/LOLA T800-1 COSWORTH: Mario Andretti (USA)
1st in qualifying, 1st in race

The successor to the 1983 T700, the T800, a combined aluminium and carbon fibre construction, is an entirely new car. It was entered by the actor Paul Newman and Carl Hass, the North American importer for the marque. Eric Broadley turned over construction of the car to the engineer Nigel Bennett, an old Lotus and Theodore hand. This man also made use of the services of the American aerodynamicist Tony Cicale, concerning the bodywork. Cosworth-engined, prepared by Franz Weis at VDS, and having a Hewland gearbox, the T800 has an innovative rear axle design as well. The upper suspension connecting arms, which are unusually short, are streamlined like airplane wings. In addition, the wheel-hub mountings have the brake air-scoops as integral parts of the assemblies. The forward lower part also acts as the anchoring point for the shock absorber, which is slightly inclined. The tops of the shocks are attached to a transverse bar, which is linked on each side by connecting arms to the engine block. Mario Andretti, 44, winner of the Indianapolis 500 in 1969, world champion in 1978, captured pole position in the last minutes of Saturday afternoon's qualifying session, but only after a long duel with Derek Daly. In the race, he was out front from the start. A piece of cake, and a trouble-free ride to victory to boot.

SHIERSON

30. TEAM SHIERSON-HESS RACING ENTREPRISES/SHIERSON DSR1-4C-001: Dany Sullivan (USA)
14th in qualifying, DNF race

Douglas Shierson was the North American importer for March between 1975 and 1980. He used two March 83Cs last season, which he sold to Canadian Tire in order to build his own cars. The designer is Ian Reed, who handled many F2 programmes at March including the one that resulted in Marc Surer taking the 1979 European Championship title. He also originated the first CART single-seater March, the 81C in 1981. The Shierson has a combined aluminium and carbon fibre tub. Constructed by the modest outfit, DART, it uses pushrod front suspension, a Hewland gearbox, and Cosworth engines, prepared in Shierson's own shop by Joe Grimaldi. In addition, a T-car has already been built, the DSR1-4C-002. Johnny Rutherford will be on the team as well, when a third monocoque is completed. At Long Beach, Sullivan had big problems during practice with understeering, the result of a hidden fault in the front suspension. In the race, he retired after stalling, following a spin.

WILDCAT

20. PATRICK RACING TEAM/WILDCAT PR9-04 COSWORTH: Gordon Johncock (USA)
22nd in qualifying, 11th in race
40. PATRICK RACING TEAM/WILDCAT PR9-03 COSWORTH: Chip Ganassi (USA)
30th in qualifying, DNF race

Wildcat is Pat Patrick's marque, whose company Patrick Petroleum operates 2,200 wells in the USA. The PR9 s have aluminium tubs under March bodywork. In addition, they have Wildcat transversal gearboxes, and Cosworth engines, maintained in-house by Sonny Meyer. The team manager is Jim McGee, a 20-year veteran of Indy-car racing. Gordon Kimball was the Wildcat engineer up until 1983. During the week of Long Beach, Tony Southgate acted as consultant, but this is only a stopgap solution. The Patrick Racing Team has two T-cars, the PR9-02 with older rocker-arm suspension, which has been replaced by wishbones on the 03 and the 04, and a March 84C, the 05, used for comparative tests. Gordon Johncock, 47, a specialist on oval tracks, winner of the Indianapolis 500 in 1973 and 1982, qualified in trials. On the other hand, Chip Ganassi, 25, coming from Formula Ford and Super Vee, did not — but was given a second chance by the organizers and allowed to start at the back of the grid. Indeed, during practice Saturday afternoon, his single seater caught fire at the beginning of the session, and the T-car PR9-02 proved not to be very competitive. In the race, Chip quickly busted a drive line, and Johncock finished rather far back, after losing first and fifth gears, then driving the last 15 laps of the race stuck in second.

PRIMUS

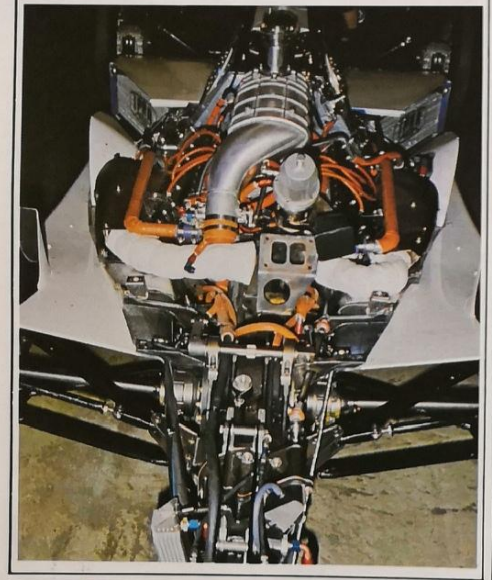
72. PRIMUS MOTORSPORTS/PRIMUS 84-01 COSWORTH: Chris Kneifel (USA)
26th in qualifying, DNQ for race

Primus means first in Latin. This name was chosen by the Pesch family, living in Lake Forest, Illinois. Owner of Pesch Industries, the majority stockholder in the Health Resources Corporation of America, they hired to design their car, the engineer Ray Kuehlthau, former assistant to John Ward in the Longhorn program that included Frank Williams. The Primus 84-01's tub is a combined aluminium and carbon fibre construction, the centre portion of which also serves as bodywork, as is now in fashion in F1. It has pullrod front suspension. The gearbox is a Wiesmann transversal. A former Midgets and Sprint Cars driver between 1964 and 1980, Lee Kunzman is the team manager. Chris Kneifel, cut his teeth in Formula Atlantic, and is only 22 years old. Unfortunately, he didn't qualify this time around.

LIGIER

98. LIGIER-CURB RACING/LIGIER LC02-1 COSWORTH: Kevin Cogan (USA)
21st in qualifying, DNF race

Its preparation completed only the Monday before the race, the Ligier-Curb didn't arrive in California until the day preceding the first practice sessions. Its aluminium tub was originally designed as a follow-on to the design of the JS21 used in F1 last year. But as work progressed, Jean-Claude Guênard realised that everything needed to be modified, including the transverse braces in the tub. Constructed in England by John Fisher, the LC02 ended up with only the steering rack of the JS21. Under the direction of Dany Hidenoch, located on the site once belonging to Dan Gurney in Santa Ana, which is about 30 miles from Long Beach, Ligier-Curb owns five Cosworth engines, the maintenance of which is handled by their British manufacturer. The gearbox is a Hewland DGB, the housing coming from Vichy. A second tub, LC02-2, will be delivered in France one week after Long Beach. It will have hydraulic suspension. Kevin Cogan, 28, has already driven in CART for Penske and Bignotti-Cotter. He got his start in Formula Atlantic. In 1981, he failed to qualify for the Long Beach Grand Prix at the wheel of a Tyrell 010-Cosworth. Handicapped by poorly set gear ratios, which obliged him to use his clutch coming out of the hairpin, Cogan busted a half-shaft toward the middle of the afternoon Saturday. The same problem came up again in the race after three laps, and was attributed to a factory defect.

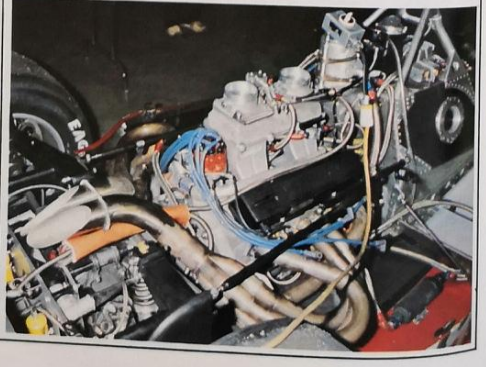


EAGLE

31. HESS RACING ENTERPRISES/EAGLE 83-05 COSWORTH: Dick Ferguson (USA)
37th in qualifying, DNQ for race
56. GOHR RACING/EAGLE 82 CHEVROLET: Steve Chassey (USA)
32nd in qulifying, DNQ for race
85. CENTER LINE RACING/EAGLE 83-03 CHEVROLET: John Morton (USA)
23rd in qualifying, 9th in race
88. ALL AMERICAN RACERS/EAGLE

84-01 PONTIAC: Michael Chandler (USA)
6th in qualifying, DNF race

Two of the four single-seater Eagles, built in Santa Ana, California, by the former Formula 1 driver Dan Gurney, did not qualify because of their modest preparation and drives. On the other hand, the 83-03 of the professional stunt man, John Morton, 42, and the works 84-01 driven by the 25-year old son of the American newspaper magnate Otis Chandler, owner of the Los Angeles Times, were worthy of notice. The first has a normally-aspirated V8 engine, prepared by Milodon, a California hot rod specialist. The strange noise it makes is because of an unusual firing order for a V8 and because of a flat crankshaft similar to the one on the Cosworth. The second car has a Pontiac V8, prepared by Stump Davis at AAR. It has twin quadruple-barrelled Edelbrock carburetors. All four Eagles have aluminium tubs and Hewland gearboxes, except the older 82 of Gohr Racing, which uses a transversal Wiesmann. In the race, Chandler surprised everyone by holding 2nd place for 75 laps, until his gearbox finally gave out.



LONGHORN

15. TRI PAK-ZENA JEANS RACING/LONGHORN LR01 CHEVROLET: Bill Tempero (USA)
36th in qualifying, DNQ for race

The Longhorn was designed by John Ward in collaboration with Frank Williams three seasons ago. Powered by a Chevy V8, and driven by a 40-year old former CanAm dragster specialist, the car failed to qualify. The car was undoubtedly oversized as well as overweight.

THEODORE

44. THEODORE RACING TEAM/THEODORE T84-1 COSWORTH: Bruno Giacomelli (I)
9th in qualifying, DNF race
78. UNITED BREWERIES INTERNATIONAL/THEODORE T84-2 COSWORTH: Jim Crawford (GB)
10th in qualifying, 4th in race

The millionaire Teddy Yip's company, where Morris Nunn is no more, gave up Formula 1 to devote itself to CART as of last season and in collaboration with Bignotti-Cotter. The single seaters, three including a T-car, have combined aluminium and carbon fibre tubs and differ in their transmissions. Bruno Giacomelli, who left F1 after the last Grand Prix of the 1983 season, has a car with a Wiesmann transversal model. Jim Crawford, 36, 1983 CanAm vice-champion, has the car with a Hewland. It is entered on a semi-works basis thanks to some help from a sponsor. Both cars are under the responsibility of the Irishman Syd Tylor, a longstanding associate of Teddy Yip. In the race, Giacomelli's engine blew up on the sixth lap. But Crawford managed a very decent race and in spite of sever muscle pain in the neck.

PENSKE

1. PENSKE RACING/PENSKE PC12-001 COSWORTH: Al Unser (USA)
24th in qualifying, DNF race
6. PENSKE RACING/PENSKE PC12-002 COSWORTH: Rick Mears (USA)
18th in qualifying, DNF race
8. VDS ASSOCIATES/PENSKE PC10-010 COSWORTH: John Paul Jr (USA)
16 th in qualifying, DNF race
11. ARCIERO RACING/PENSKE PCIO-009 COSWORTH: Pete Halsmer (USA)
19th in qualifying race, 11th in race
55. MACHINISTS UNION RACING/PENSKE PC10-006 COSWORTH: Josele Garza (MEX)
25th in qualifying, DNF race
59. McCRAY RACING/PENSKE PC10-003 COSWORTH: Johnny Parsons Jr (USA)
39th in qualifying race, DNQ for race

Roger Penske, 47 years old, co-founder of CART, has 2,000 men working for him. The Penske Corporation comprises three sections: Energy and Engines; Transportation; Performance. After a brief flirt with F1 a decade ago, Penske Racing redirected its resources into Formula Indy. Geoff Ferris, a British engineer who worked in aviation and then spent eight years in F1 with Lotus and Brabham , designed all the monocoques built for Penske to date. He is based in Poole, Dorset GB, whereas the service and maintenance centre is at Reading in Pennsylvania. Derrick Walker the Penske Racing team manager, joined the group in 1975 for the F1 project. He used to be Reutemann's Chief mechanic for Brabham. The new official PC12s are equipped with aluminium tubs reinforced with carbon fibre on either side of the cockpit. They are powered by Cosworth engines, prepared team member Karl Kainhofer. They use British Holset, turbochargers, whereas the other Cosworths are equipped with Japanese IHI (Ishikawa Ajima Harima), and transversal Patrick gearboxes. A comparitive test was carried out before Long Beach between these PC12s and a March 84C, the 08, acquired by the team, showing similar results. Al Unser, Sr, 44 years old, the 1983 CART champion, winner of the Indianapolis 500 in 1970, 1971 and 1978, would drive the March, and Rick Mears, 32 years old, CART champion in 1979, 1981 and 1982, the PC12. This was in order to push the comparison as far as possible between the two monocoques and to then make the most judicious choice for Indy. On Friday, in spite of an engine failure, causing Mears to use the T-car PC12-001, the programme was adhered to. However, on Saturday morning, "Big Al" went off the track and hit a wall with the front right end, slightly damaging his 84C-08 chassis. He would take part in the race using the T-car, but did not take part in the last qualifying session, which meant that he had no offial time and so found himself on the 12th row of the grid: last of the 24 qualifiers according to their times. The 4 other Penskes entered for the race are the PCIOs belonging to private teams. 1982 IMSA champion, 24-year old John Paul Jr's PCIO was entered by the VDS team for the Belgian count, Rudy van der Straeten, owner of the Stella Artois beer company. It was equipped with a transversal Weismann gearbox. VDS established in the USA for a long time now, has an engine service and maintenance workshop in Midland, Texas under the management of Franz Weis and Troy Rogers, two former workers for Chaparral, which remains close by, as only the Rattlesnake circuit separates the two makes.

John Ward, founder of Longhorn, was hired by VDS and is working on a special body panel unfinished for Long Beach. Peter Halsmer, 40 years old, was driving the monocoque with a Weismann transversal gearbox and Penske-prepared Cosworth engine from Arciero Racing. Josele Garza, 25 years old, was driving one with a Hewland gearbox for Machinist Union, which also has T-car, the PC10-005. Johnny Parsons Jr, 39 years old and son of the 1950 Indianapolis 500 winner, Johnnie Parsons, had the slowest time in practice driving McCray Racing's PCIO. During the race, the official PC12s were soon eliminated due to engine failure without having excelled, and Halsmer was the only to finish. The hero of the day was Paul Jr, who worked his way up to lie 5th, before losing a wheel.

MARCH

4. MAYER MOTOR RACING/MARCH 84C-15 COSWORTH: Tom Sneva (USA) 15th in qualifying, 3rd in race
5. TRUESPORTS COMPANY RACING/MARCH 84c-06 COSWORTH: Bobby Rahal (USA) 13th in qualifying, DNF race
7. GALLES RACING/MARCH 84C-17 COSWORTH: Al Unser Jr (USA) 4th in qualifying, DNF race
9. BIGNOTTI-COTTER RACING/MARCH 84C-07 COSWORTH: Roberto Guerrero (CO) 5th in qualifying, DNF race
16. PROVIMI RACING/MARCH 84C-14 COSWORTH: Tony Bettenhausen Jr (USA) 28 th in qualifying, DNQ for race

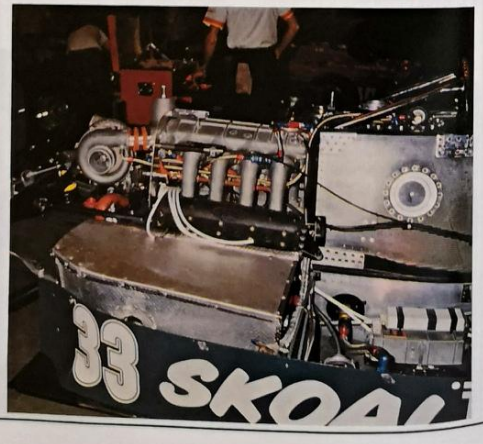
17. PROVIMI RACING/MARCH 84C-02 COSWORTH: Derek Daly (IRL) 2nd in qualifying, 7th in race
18. DRACO RACING TEAM/MARCH 84C COSWORTH: Geoff Brabham (AUS) 8th in qualifying, 2nd in race
21. ALEX FOODS RACING/MARCH 84C-20 COSWORTH: Al Holbert (USA) 20th in qualifying, DNF race
22. PINK-SIMON RACING/MARCH 84C-22 COSWORTH: Dick Simon (USA) 33rd in qualifying, DNF race
25. INTERSCOPE RACING/MARCH 84C COSWORTH: Danny Ongais (USA) 31st in qualifying, DNQ for race
27. ALSUP RACING TEAM/MARCH 83C-19 COSWORTH: Bill Alsup (USA) 35th in qualifying, DNQ for race
33. FORSYTHE RACING/MARCH 84C-16 COSWORTH: Teo Fabi (I) 3rd in qualifying, DNF race
34. WYSARD RACING/MARCH 83C-05 COSWORTH: Desire Wilson (ZA) 29th in qualifying, DNQ for race
41. MAYER MOTOR RACING/MARCH 84C-12 COSWORTH: Howly Holmes (USA) 17th in qualifying, DNF race
47. WIT RACING PROMOTIONS/MARCH 83C-08 COSWORTH: Emerson Fittipaldi (BR) 12th in qualifying, 5th in race
64. JET ENGINEERING/MARCH 83C-21 CHEVROLET: Ed Pimm (USA) 26th in qualifying, DNF race
69. AMERICAN DREAM RACING/MARCH 83C-07 COSWORTH: Phil Caliva (USA) 38th in qualifying, DNQ for race
70. AMERICAN DREAM RACING/MARCH 84C-26 COSWORTH: Roger Mears (USA) 34th in qualifying, DNQ for race
76. CANADIAN TIRE RACING/MARCH 83C-06 COSWORTH: Jacques Villeneuve (CDN) 11th in qualifying, 6th in race
99. DRACO RACING TEAM/MARCH 84C COSWORTH: Michael Andretti (USA) 7th in qualifying, 10th in race

Robin Herd's company, located in Bicester GB, is doing a booming business in CART. Twenty two type-83C single seaters were built in 1983, and there are already 41 orders for the 84C on the books this season. Two of his competitors, Penske and Wildcat, have even bought cars in order to compare them with their own models. Out of the 39 cars participating in the Long Beach qualifying sessions, 21 were Marches. Dave Reeves heads up the team building the type Cs in Bicester. He is assisted by Ralph Bellamy concerning aerodynamic studies. This man conducted wind tunnel tests on the 84C at Imperial College in the London area of Kensington. Compared with the 83C, the aluminium and carbon fibre tub was shortened to accommodate a new fuel tank design, which is higher and longer. In addition, a special transmission was studied, and is connected with a Hewland gearbox. The casing design integrates the oil tank, two rear onboard jacks, and two recesses for installing shock absorbers that are grouped in the centre of the car in a way similar to that adopted by Lotus in F1, several seasons ago. Factory maintenance and service is handled in the US by the company AMI, located in Indiana. For each race, they bring an enormous truck of spare parts. Teddy Mayer, who left McLaren a year ago, together with a former colleague, Tyler Alexander, are the founders of Mayer Motor Racing. They have two 84Cs for their drivers, Tom Sneva, 35 years old, 1977 and 1978 CART champion and winner of the 1983 Indianapolis 500, and Howdy Holmes, 36 years old and 1978 Formula Atlantic champion. The cars are Cosworth engined, prepared by McLaren USA. Their engineer is John Baldwin.

Truesports Company Racing's entrant is an 84C with a Cosworth engine prepared by VDS. Bobby Rahal, 31 years old, is the driver and was briefly seen in F1 a few seasons ago. Jim Trueman, who is president of the motel chain Red Roof Inns, established in 1972, is also the owner of the Mid Ohio circuit. In 1983, he consulted with Lee Dykstra, creator of the IMSA Jaguar XJR5. Since Lee could not devote himself to the team full-time, Andrian Newly has been hired for the season.

Galles Racing is located in Albuquerque, New Mexico. The Rick Galles Corporation builds vans, go-karts, and is involved in sports oriented marketing and promotion. Al Unser Jr, nick-named "Little Al", the son of "Big Al" Unser Sr, is 22 years old and was crowned CanAm champion in 1982. His Cosworth-engined 84C, prepared in California by Ryan Falconer, is in the hands of team manager Huey Absalom, who has an impressive past. He was a mechanic at Brabham in 1966, was with Lotus from 1967 to 1969, then McLaren Indy in 1970.

With Parnelli in 1976, he then became



development engineer at McLaren F1 the following year. In 1978, he worked for Chaparral Indy, then went back to McLaren F1 from 1979 to 1980, before going to Longhorn, Forsythe and Rick Galles. At Long Beach, the team had an 84C-17 T-car as well.

Bignotti-Cotter Racing entered an 84C for Roberto Guerrero, the Colombian passed over by F1 at the end of the '83 season. George Bignotti, 68 years old, is the most celebrated chief mechanic in Indy-car history. His cars placed 1st at the 500-mile race in 1961, 1964, 1966, 1970, 1971, 1973, and 1983. After this last victory credited to Sneva, problems of politics and reliability led Bignotti to set up a new team, starting from scratch. This year, he is with Morris Nunn, the creator of Ensign, who is accompagnied by his driver of last year. Their Cosworth engines are prepared by the team themselves.

Provimi Racing belongs to Aat Gronevelt, a Wisconsin calf-famer. He fields two 84Cs, one for Derek Daly, who left F1 at the end of his Williams contract in 1982, and one for Tony Bettenhausen Jr, 32 years old, son of Tony Sr, killed during Indianapolis qualifying sessions in 1960. The cars are Cosworth-engined.

Kraco Racing Team is the property of Maurice Kraine, whose company Kraco Car Stereo has a large share of the American car-radio market. Three 84Cs, one of which is a T-car, were bought for Michael Andretti, 21 years old, son of Mario Andretti, and his teammate, Geoff Brabham, 32 years old, and the son of Jack Brabham. Meaning both drivers are the offspring of former world champions. The cars have Cosworth engines, maintained in the US by Torrance or by John Judd in Great Britain. The team manager is Haff Haffenden, formerly of Gurney in their F1 days, and the engineer is Trevor Harris, whose daring ideas, although often unrealistic, cut short his stay with Shadow during its time in F1.

Forsythe Racing is the home of Teo Fabi, as was already the case in 1983. Indeed, Teo's CART racing takes precedence over his F1 schedule with Brabham. His two 84Cs are Cosworth-engined, prepared by Gerald Davis at Chaparral. The

chief mechanic is Barry Green, who worked in F1 at Surtees, and spent three seasons in CanAm with Paul Newman. Forsythe is the last name of two brothers, whose firm, Indeck Power Equipment Company, manufactures industrial boilers.

Wysard Racing, which is a division of Wysard Investments the estate company operating in California and Texas, has the South African Desire Wilson, 30 years old, as their driver for an 83C. The engineer is Christopher Schirle, who worked for ATS from 1981 to 1983.

WIT Racing Promotions, an investment consortium in Tampa, Florida, run an 83C for Emerson Fittipaldi. This new team is soon to take delivery of a March 84C in place of their present single seater, which previously belonged to Forsythe.

Canadian Tire Racing Team, owners of an automobile accesories chain, bought two 83Cs, which were used by Shierson last season. The cars are driven by Jacques Villeneuve, 30 years old. Performance Engineering maintains their Cosworth engines. The transversal gearboxes are Weismanns, unlike the other Marches, which all have Hewlands.

Also noteworthy is Alex Foods Racing, who run a Cosworth-engined 84C, prepared by McLaren Engines, and driven by Al Holbert, 37 years old, defending IMSA champion. Interscope Racing which is back in the action after a year's absence, trust their 84C to Danny Ongais, 41 years old. Jet Engineering has an 83C with a Chevy V8, which is driven by Ed Pimm, 27 years old, defending Super Vee champion.

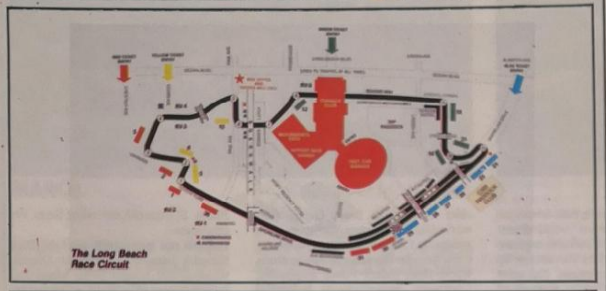
Last but not least, are 50-year old Dick Simon's team, then American Dream, whose drivers, notably Roger Mears who is Rick Mears older brother, leave a lot to be desired, and Bill Alsup's group. The latter is for the moment without a sponsor. In addition, he has temporarily replaced his Argo JM15 of last season by an 83C.

During practice, the Marches were involved in a few incidents. For instance, Fabi had a minor accident Friday, and Guerrero went off the road Saturday. This latter incident put Rahal in a bind as well, since he hit a wall, trying to avoid Guerrero. As a result, the Colombian who was sitting pole Friday, was not able to defend his position on the starting grid.

In the race, besides breakdowns, Fittipaldi, Villeneuve, Daly, and Michael Andretti were held back by degraded gearboxes. Fabi was the victim of a brake failure and stalled in a turn. He was unable to restart. Holmes and Rahal collided. Apparently, the latter pulled out of the pit lane without due regard for the traffic.

LONG BEACH GRAND PRIX RACE

Round 1 of Championship Auto Racing Team (CART) 1984
Official race title : Toyota Grand Prix of Long Beach.
Date: April 1, 1984.
Race distance: 112 laps on a modified circuit of 1.67 miles (2.687km), or 187.04 miles (301.011km).
Weather conditions: clear skies on Friday; windy and cloudy on Saturday; fine weather on Sunday.
Attendance: 55,000.



FINAL RESULTS

1. Mario Andretti/Lola T800-Cosworth, 112 laps, for 187.04 miles (301,011km) in 2h15: 23.00, an average of 82.898 mph (133.411km).

2. Geoff Brabham	**March 84C-Cosworth**	**by 0:63.2s**
3. Tom Sneva	**March 84C-Cosworth**	**111 laps**
4. Jim Crawford	**Theodore T84-Cosworth**	**111 laps**
5. Emerson Fittipaldi	**March 83C-Cosworth**	**110 laps**
6. Jacques Villeneuve	**March 83C-Cosworth**	**109 laps**
7. Derek Daly	**March 84C-Cosworth**	**109 laps**
8. Pete Halsmer	**Penske PC10-Cosworth**	**107 laps**
9. John Morton	**Eagle 83-Chevrolet**	**106 laps**
10. Michael Andretti	**March 84C-Cosworth**	**105 laps**
11. Gordon Johncock	**Wildcat PR9-Cosworth**	**104 laps**
12. Ed Pimm	March 83C-Chevrolet	80 laps, retired (half shaft)
13. Howdy Holmes	March 84C-Cosworth	71 laps, retired (accident)
14. Bobby Rahal	March 84C-Cosworth	70 laps, retired (accident)
15. Al Holbert	March 84C-Cosworth	70 laps, retired (engine)
16. Michael Chandler	Eagle 84-Pontiac	58 laps, retired (gearbox)
17. Al Unser Jr	March 84C-Cosworth	54 laps, retired (electrical fail.)
18. Teo Fabi	March 84C-Cosworth	51 laps, retired (brakes)
19. Dick Simon	March 84C-Cosworth	50 laps, retired (gearbox)
20. John Paul Jr	Penske PC10-Cosworth	35 laps, retired (wheel lost)
21. Rick Mears	Penske PC12-Cosworth	27 laps, retired (fuel system)
22. Al Unser Sr	Penske PC12-Cosworth	27 laps, retired (engine)
23. Josele Garza	Penske PC10-Cosworth	25 laps, retired (electrical failure)
24. Danny Sullivan	Shierson DSR1 4C-Cosworth	22 laps, retired (spun out)
25. Chip Ganassi	Wildcat PR9-Cosworth	13 laps, retired (transmission)
26. Roberto Guerrero	March 84C-Cosworth	10 laps, retired (engine)
27. Bruno Giacomelli	Theodore T84-Cosworth	6 laps, retired (engine)
28. Kevin Cogan	Ligier LC02-Cosworth	3 laps, retired (half shaft)

STARTING GRID

17. DEREK DALY
March 84C-Cosworth
1:06.904

3. MARIO ANDRETTI
Lola T800-Cosworth
1:06.263

7. AL UNSER Jr
March 84C-Cosworth
1:07.445

33. TEO FABI
March 84C-Cosworth
1:07.341

88. MICHAEL CHANDLER
Eagle 84-Pontiac
1:07.460

9. ROBERTO GUERRERO
March 84C-Cosworth
1:07.454

18. GEOFF BRABHAM
March 84C-Cosworth
1:07.729

99. MICHAEL ANDRETTI
March 84C-Cosworth
1:07.580

78. JIM CRAWFORD
Theodore T84-Cosworth
1:08.662

44. BRUNO GIACOMELLI
Theodore T84-Cosworth
1:08.098

47. EMERSON FITTIPALDI
March 83C-Cosworth
1:08.935

76. JACQUES VILLENEUVE
March 83C-Cosworth
1:08.676

30. DANNY SULLIVAN
Shierson DSR1 4C-Cosworth
1:09.000

5. BOBBY RAHAL
March 84C-Cosworth
1:08.959

8. JOHN PAUL Jr
Penske PC10-Cosworth
1:09.135

4. TOM SNEVA
March 84C-Cosworth
1:09.054

6. RICK MEARS
Penske PC12-Cosworth
1:09.417

41. HOWDY HOLMES
March 84C-Cosworth
1:09.197

21. AL HOLBERT
March 84C-Cosworth
1:09.832

11. PETE HALSMER
Penske PC10-Cosworth
1:09.675

20. GORDON JOHNCOCK
Wildcat PR9-Cosworth
1:10.034

98.KEVIN COGAN
Ligier LC02-Cosworth
1:09.912

1. AL UNSER Sr
Penske PC12-Cosworth
(*)

85. JOHN MORTON
Eagle 83-Chevrolet
1:10.231

64. ED PIMM
March 83C-Chevrolet
1:10.542 (**)

55. JOSELE GARZA
Penske PC10-Cosworth
1:10.257 (**)

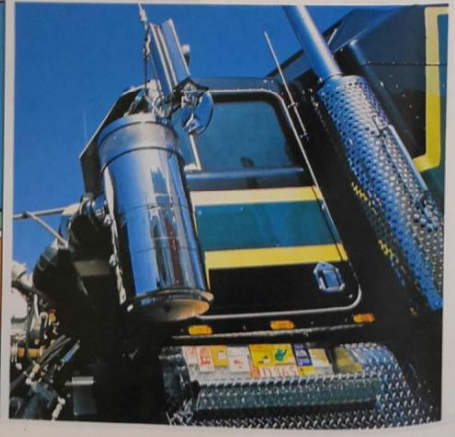
22. DICK SIMON
March 84C-Cosworth
1:12.519 (**)

40. CHIP GANASSI
Wildcat PR9-Cosworth
1:11.363 (**)

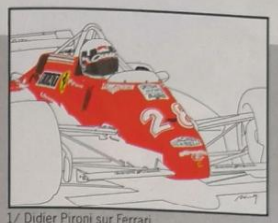
(*): No official time for the Penske PC12, which did not run in the second qualifying session. The time for the March 84C after the first qualifying session was 1:09.865.
(**): authorised to race by organizers.

DID NOT QUALIFY

72. Chris Kneifel/Primus 84-Cosworth, 1:10.629
16. Tony Bettenhausen/March 84C-Cowworth, 1:10.793
34. Desire Wilson/March 83C-Cosworth, 1:11.242
25. Danny Ongais/March 84C-Cosworth, 1:12.232
56. Steve Chassey/Eagle 82-Chevrolet, 1:12.496
70. Roger Mears/March 84C-Cosworth, 1:12.737
27. Bill Aslup/March 83C-Cosworth, 1:13.662
15. Bill Tempero/Longhorn LR01-Chevrolet, 1:14.438
31. Dick Ferguson/Eagle 83-Cosworth, 1:14.498
69. Phil Caliva/March 83C-Cosworth, 1:17.208
59. Johnny Parsons Jr/Penske PC10-Cosworth, 1:17.318



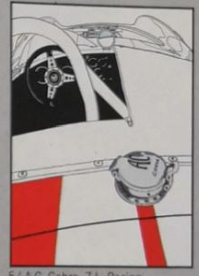
AUTO LOVERS, INVEST IN YOUR PASSION

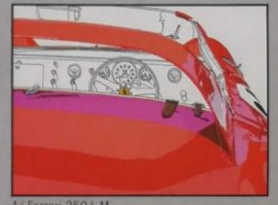

1/ Didier Pironi sur Ferrari.

2/ Kéké Rosberg sur Williams.

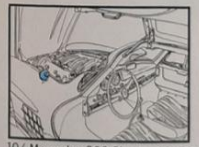
3/ Metge/Gillot sur Range. Paris-Dakar.

7/ GTO par Damiano.

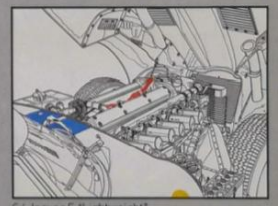

5/ A.C. Cobra. 7 L. Racing.


4/ Ferrari 250 L.M.

9/ Jaguar XK 120 size. 56 x 38 cm.


10/ Mercedes 300 SL. size. 56 x 38 cm.

8/ GTO par Mirgalet.


6/ Jaguar E "Lightweight".

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IMSA 12 HOURS OF SEBRING

GOT THEM HEEBIE-JEEBIES TONIGHT

A STRANGE CIRCUIT, A BIZARRE ATMOSPHERE, AND A SURPRISING RESULT. SEBRING ISN'T AS SUMPTUOUS AS MIAMI, BUT THERE'S NOTHING BORING ABOUT THIS TRACK, BUILT ON THE FOUNDATIONS OF A DEFUNCT USAF AIRFIELD. IT'S NOT THE MOST COMFORTABLE PLACE IN THE WORLD, ESPECIALLY WITH DUST AND SWEAT AND MUGGY WEATHER. YET, WHEN AN AGING PORSCHE COMES SCREAMING OUT OF THE NIGHT, TO PROPEL A MELANCHOLY SWEDE BACK INTO THE ARMS OF VICTORY, MANY A SPECTATOR EXPERIENCES A THRILL OF DELIGHT.

by Xavier Chimits

Think what Florida means to you. Miami, Cuban refugees, old folks in retirement homes, Disney World and Epcot, Key West and Hemingway, and Cape Canaveral. Florida is one continuous coast (east coast?), but there's the interior as well. Although this is mostly swampland, especially toward the south, where you find Everglades National Park — and regions rarely visited by man.

This is a land of simple folk, where motorsport has a different meaning. GTP, GTO, and GTU is just alphabet soup for these people. Their thing is swamp buggies. The idea isn't difficult to understand. You look for a large pond, as muddy as possible, and preferably with a small hill off to one side. You put together a machine with gigantic, narrow tyres — it should be amphibious — and an enormous engine. Strap on your helmet, and taking advantage of the running start you get going downhill, try and get across the swamp. Some guys make it. In addition, the very day of the Miami Grand Prix, one of the biggest annual gatherings of swamp buggies was taking place. Truly two radically different concepts of motorsport!

Sebring is right in the middle of Florida. Open water is everywhere in the meadows, and bayous abound. Lakes and rivers have strange, mysterious names: Istokpoga, Okeechobee, and Caloosahatchee. Or if you like, Kissimmee... A few Seminole indians can still be found along the backwaters and keep the old traditions alive. For its part, Sebring has become a centre for stock-farmers and orange-growers. Indeed, Florida is America's largest producer of oranges, which has helped this town, built around a lake and noted for its many churches, grow to a population of 10,000. At first glance, nothing extraordinary. But seen from the other side of the Atlantic, Sebring has a whole other mystique. For instance, it was at this

→

of the race, and the day after, the same smiling mug is spread over the front pages of the local dailies — A. J. Foyt's. Leaving the hotel in Arcadia, the haunt of several pressmen, and about 50 miles from Sebring, the 60-year old receptionist had only a single question: did A. J. Foyt win? The last time he raced at Sebring was in 1967 in a Ford Mk II. This time during the race, he came into the pits with the front of the car a wee bit bashed in. It was Wollek's turn at the wheel. A. J. was looking a little embarrassed as Bob climbed into the driver's seat and the mechanics of Henn's Swap Shop struggled to mount a new bonnet on the red Porsche. Then he pulled out a rag and started to clean the windscreen himself. Next he went off to refill the water bottle, which goes in the cockpit of the 935. A touching scene. Foyt wanted to be forgiven. And he was. Bob listened, an understanding look in his eye, as Foyt told about his accident. A hole, on the outside of the hairpin, the result of the many cars taking that line, had tripped him up. A. J.'s face was streaked with sweat and dust, but he was smiling as Wollek roared back onto the track. That evening, a jet took off at the Sebring airport at 21:00. Foyt was at the controls. He knew that the Porsche number 6 was not going to win 12 Hours of Sebring, as he had suspected for a long time. So he preferred to quietly leave, telling Tom Tucker the press secretary for the circuit, *"Please excuse me with the fans if we win. But I'll be in Houston before the end of the race."*

Will Foyt be at Le Mans? He says he would like to, but that nothing has been decided. Holbert is hoping that the date of the famous French endurance race will change. He has to compete on the same day in CART at Portland. Bob Tullius is hesitating as well. It would be exciting for him to once again be in the 24 Hours, 17 years after his first experience, then driving a Howmet. But the American feels, and justly so, that Jaguar's reputation in endurance is elsewhere. He isn't indifferent to the sensation Jaguar's return to Le Mans would make in Europe. Yet, from that moment on, there would be absolutely no room for error — let alone defeat, and in spite of the Jag's normally-aspirated engine, which would have difficulty matching the pace of the Porsche turbo. Hesitation seems reasonable indeed. Meaning, that if anyone is pinned down, Jaguar's return to Le Mans is probably not for this year.

A. J.'S FACE WAS STREAKED WITH SWEAT AND DUST, BUT HE WAS SMILING AS WOLLEK ROARED BACK ONTO THE TRACK

Bob Tullius, with his game left leg, a reminder of a bad football injury that took him out of the army, is the toast of 70,000 spectators at 12 Hours of Sebring as he puts on a superb show at the start of the race. But it takes two to make a good flight, and in the South African Sarel Van Der Merwe, the ex-Transam champion finds his match. Is it for the television people? Or because the director of Kreepy Krauly is at Sebring? Whatever the reason, it remains that the March number 00 gives Tullius a run for his life. Through the moving chicanes, created by the slower contenders, the duel for the lead starts lapping the others as of the 3rd time around. But in this game, where Tullius has more experience, or is perhaps more tenacious than his rival, Van Der Merwe is only able to dominate for a single lap. Redman, as he said earlier, has no desire to play with fire, while behind the Jaguar and the March come Wollek, Stuck, and Bell in squadron formation.

On the 17th lap, Sarel comes into his pit to have a minor part fixed on his turbo. He gets out of the March and turns the wheel over to Martin. He has failed. Already, the day before, if not for the rain, he would have taken pole position from Redman. Because no one doubted that by tweaking his turbo pressure just a little, he would have had his way. Nevertheless, in just two races, Daytona and Miami, Van Der Merwe has attained the stature of an international endurance driver. His sponsor's brightest hopes are resting on his shoulders — to the point that he will soon have to chose between circuit racing or rallying. And it appears circuit racing will have it.

MANY OF THEM HAVE AN AIR, ALBEIT UNINTENTIONAL, OF BEING VETERANS OF THE COUPE DE L'AGACI AT MONTHLERY IN THE SIXTIES

Rain poured incessantly on the Sebring circuit Friday, and drowned the chances of many competitors who had not yet qualified on the basis of their Thursday trials. Even so, the organisers were quite understanding and authorised any car to compete that could complete a fast lap in less than 3 minutes during Saturday morning warm-up. This meant that 21 competitors were saved. Among them, the March 83G-Chevrolet from Blue Thunder Racing which excelled in the race. This kind of thing is perhaps not in keeping with the ways and customs of European motorsport, but no one at Sebring complained.

For organistion, Americans are tops. They come to Sebring and sit for three days in folding chairs atop their vans lined up beside the track. Some erect their own scaffolding. Not wanting to be outdone, others place scaffoldings on their vans. A lot can happen in the night, especially betwee the hairpin and the chicane, where rebel flags far outnumber Stars and Stripes. According to one track official, marijuana and beer only heighten the already electric atmosphere. There are even incidents of "indecent exposure", girls who take off their bras in order to have a better view of the race, which doesn't seem quite logical.

Brian Redman, who has just turned over the wheel to Bedard, was the fastest man at Sebring - pole sitter and fastest lap holder. How many times has he retired? (photo: Stéphane Foulon/DPPI)

The 5-litre Chevy V8, although not as powerful as the Jag, Porsche, or Buick engines, is still much less expensive. And in the cherry March 83G of Blue Thunder Racing, it almost stole the show. (photo: Stéphane Foulon/DPPI)

Who would have made book on this Porsche, with already some 110 races to its credit? Winning number 48. (photo: Stéphane Foulon/DPPI)

ECONOMISER UN PLEIN D'ESSENCE.

quite different, because there aren't many indications of the line to take, and I'll have trouble knowing at what point the track shifts onto the airstrip if I don't have a car in front of me during the first couple of laps. However, I know the 935 and I'm quite used to this kind of race from the German championships". The Sebring airfield was in its heyday during WWII. Bombers were based there, ready to fly to South America if necessary. In the fifties, the Air Force abandoned the area, leaving their hangars behind. Several local industries took over, one of which manufactured electric golf carts. In short, the Sebring circuit is not an opulent one. But during the night, its glory re-emerges under the lights of the teams and amid the sounds of folk music coming from the vans. It's not by chance that most of the races run at Sebring take place, in part, during the night.

Johansson was nervous before taking over for the last stretch. De Narvaez's 935, with more than 110 races to its credit, had been miraculously spared from the troubles which befell all the other cars in the lead up till then, from Tullius to Wollek, including Redman, Van der Merwe and Norton. But motorsport owes the Swede a debt. And as soon as he entered the pits in triumph, De Narvaez and Heyer, after the applause and handshakes, went back up the pit lane toward the podium, in response to the acclaim they were receiving. Johansson, slipping a jacket over his driving togs preferred to lean for a moment against the low wall of the pit all alone, in the heat of victory. At that moment, he was no longer thinking of Rio. □

182 FRANCS D'ECONOMIE
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GRAND PRIX INTERNATIONAL

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TARIF AVION SUR DEMANDE. * 450 FRANCS PAR AN POUR L'ETRANGER.

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Who would have made book on this Porsche, with already some 110 races to its credit? Winning number 48. (photo: Stéphane Foulon/DPPI)

Not to mention fights. These fears would seem exaggerated. In spite of a larger crowd — there were only 45,000 spectators in 1983 — the police made just 24 arrests against 67 last year. Notably that of Deborah Rodman who made history at 12 Hours of Sebring for having been topless even in the paddock area. That was over the limit. The police thought so, too.

TAKING ADVANTAGE OF THE RUNNING START YOU GET GOING DOWNHILL, YOU TRY AND GET ACROSS THE SWAMP

On the morning of the race, a gloomy Stefan Johansson was somewhat apprehensive about competing in 12 Hours of Sebring without even having done a single trial lap on a circuit he didn't know, and in a car he had never driven. An since trouble always comes in spades, the evening before, he pulled a muscle in his back while lifting a suitcase at the hotel after a marathon plane flight. In fact, Johansson was thinking of Rio: *"I know that Spirit is prepared to race a second car during the European season, but first, I have to find a sponsor. I just can't help thinking that I should be in Rio today."*
Hans Heyer, who had shared the same Frankfurt-Miami experience as Wollek and Johansson, was less ruffled: *"This track is quite different, because there aren't many indications of the line to take, and I'll have trouble knowing at what point the track shifts onto the airstrip if I don't have a car in front of me during the first couple of laps. However, I know the 935 and I'm quite used to this kind of race from the German championships"*. The Sebring airfield was in its heyday during WWII. Bombers were based there, ready to fly to South America if necessary. In the fifties, the Air Force abandoned the area, leaving their hangars behind. Several local industries took over, one of which manufactured electric golf carts. In short, the Sebring circuit is not an opulent one. But during the night, its glory re-emerges under the lights of the teams and amid the sounds of folk music coming from the vans. It's not by chance that most of the races run at Sebring take place, in part, during the night.
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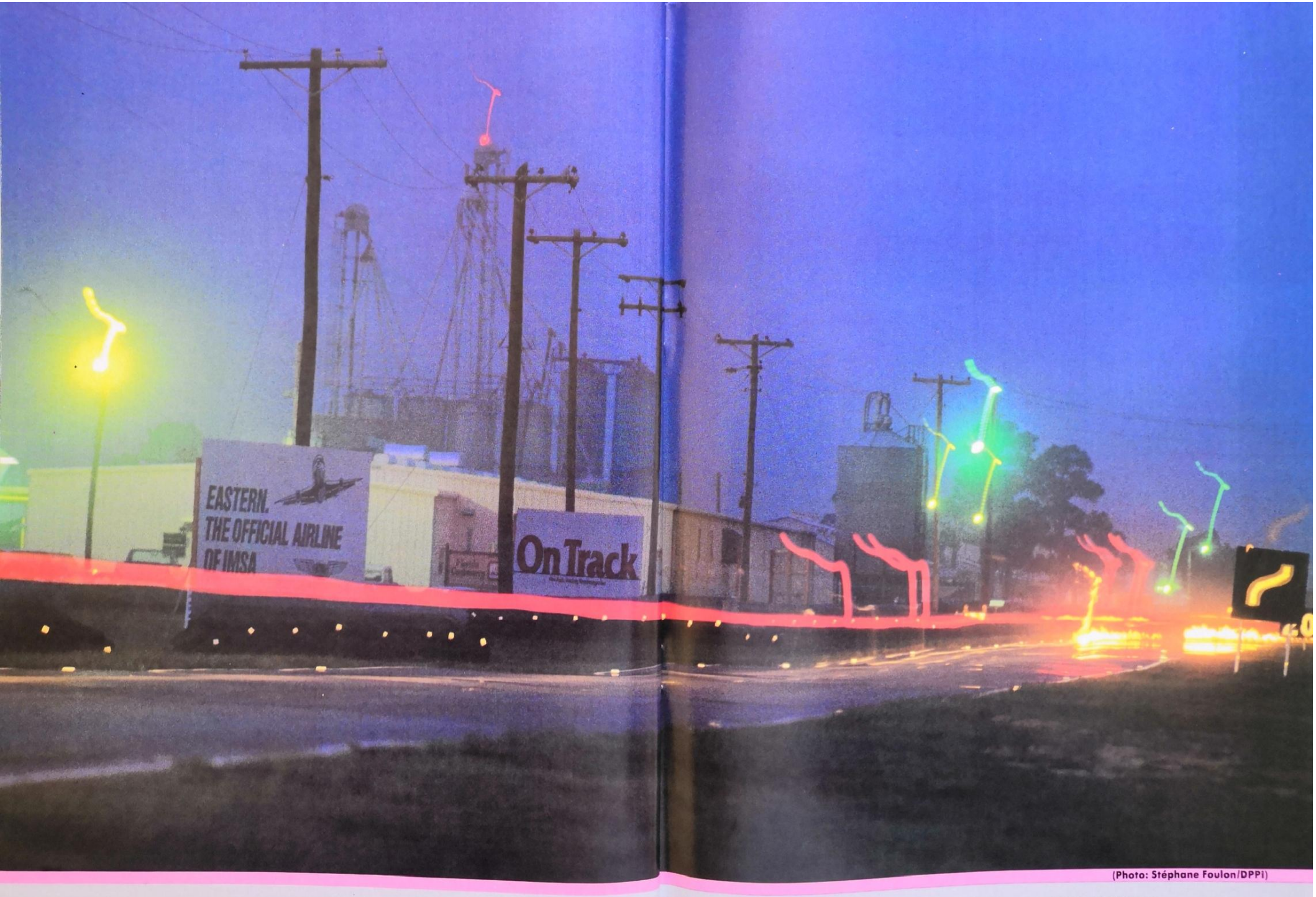
Jaguar XJR5 (photo: Stéphane Foulon/DPPI)

A LOOKER AND FAST AS GREASED LIGHTNING TO BOOT BUT MAKING IT MEANS BEING A SHADE TOUGHER

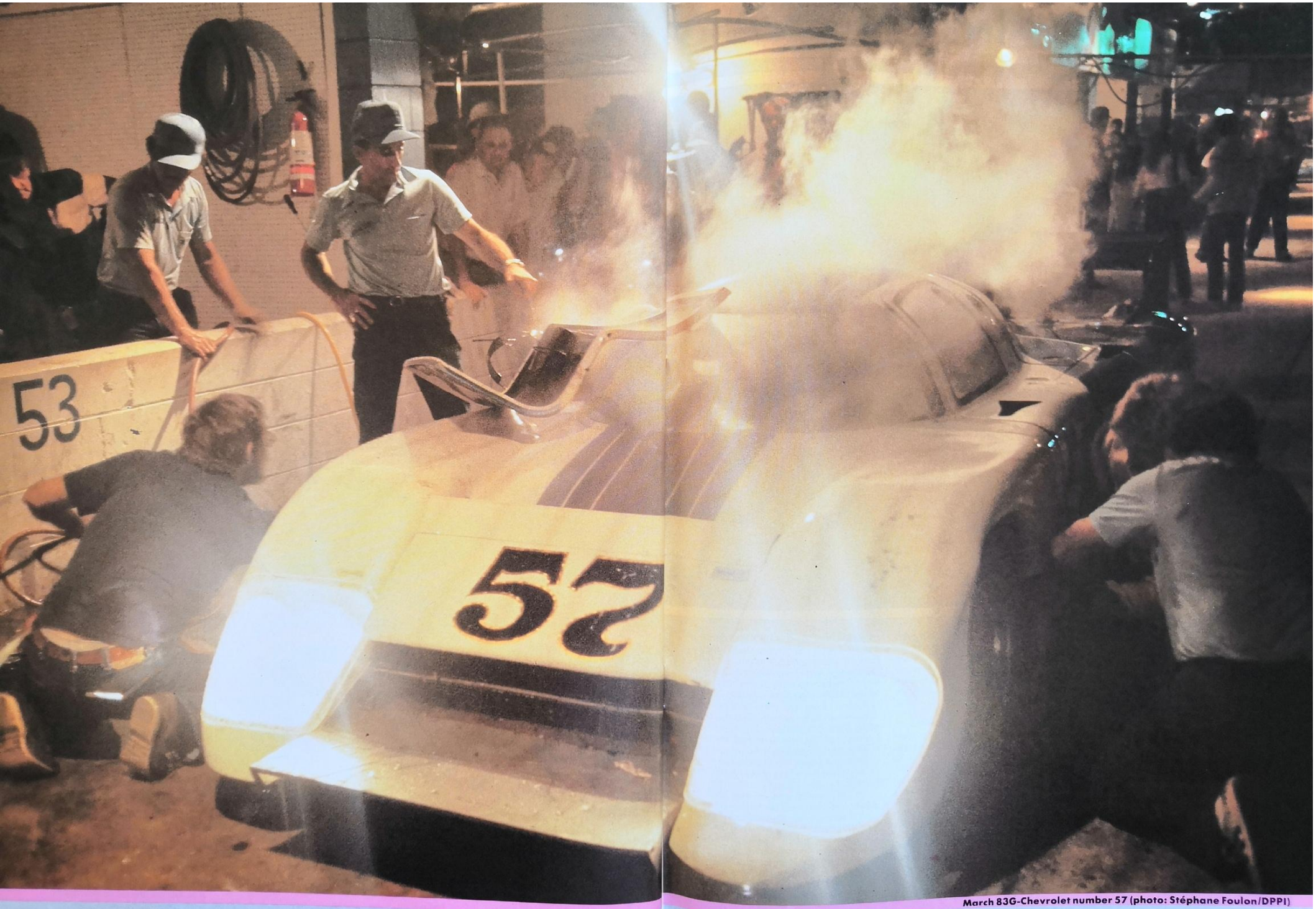
Porsche 935 number 5 (photo: Stéphane Foulon/DPPI)

YOUR HEART IN YOUR THROAT, A REBEL YELL IN THE AIR - - OVERTAKING IS A HAIR-RAISER AT SEBRING



(Photo: Stéphane Foulon/DPPI)

IN THE HEAT OF THE NIGHT, ON A FAST TRACK WHICH SU ELY HAS LITTLE IN COMMON WITH ANY OTHER



March 83G-Chevrolet number 57 (photo: Stéphane Foulon/DPPI)

THE SITUATION IS DESPERATE — THE BLUE THUNDER MARCH, COUGHING AND SMOKING, LOSES TWO RACE LAPS

Porsche 935 - Akin/O'Steen/Stuck (photo: Stéphane Foulon/DPPI)

NIGHTSCAPE

IT'S SIX O'CLOCK AT SEBRING AND SUNDOWN — A WELCOME RELIEF FROM THE OPPRESSIVE HEAT OF THE DAY. THE RELATIVE COOL OF A SPRING EVENING in Florida breathes new vigor into an otherwise torpid race. Foyt/Wollek/Bell's Porsche 935, out front since 14:00, limps into the pits with a busted front wheel-hub mounting. Repairs cost them seven laps, and Hans Stuck, driving the CocaCola Porsche 935 number 5 takes over the lead. He has had no third-gear all afternoon, which explains why the Andial Porsche number 6 got away from him. But look out! Number 57, a March 83G-Chevrolet less than a lap behind is putting on the pressure. And a sleeper, Heyer/Johansson/De Narvaez's Porsche 935 is also no more than a lap or so back from the leaders. Indeed, number 48 hasn't had the least mechanical difficulty since the start of the race, which explains its enviable position at the moment.

Toward 20:00, number 5 laps the March, and at the same time the four front-runners make pit stops for refuelling. Akin takes over from Stuck, and number 5 is first out of the pit lane. Seconds later Randy Lanier peels out in the March, followed by Bell — number 6 has made up two of the lost laps — and Heyer, still only a lap back from the lead. It doesn't take long for Lanier to pass Akin. Blue Thunder Racing's staff smile smugly. They've picked up on number 5's gearbox trouble. If Lanier keeps going at this rate, he'll win 12 Hours at Sebring. Wollek is down in the mouth. A wastegate pop-off valve on the Andial Porsche is showing signs of failing and turbo pressure continues to drop. In Akin's pit, the team is sick with worry. O'Steen talks to keep his mind off his fears. He tells about last year, then as now in the company of Akin, when their Porsche was stuck in the pits for 30 minutes after water somehow got into the fuel tank. Even so, they finished only seconds behind the winning Porsche, driven by Baker/Mullen/Nierop. He wants to believe that Sebring owes him this win. Finally, he waxes conspiratorial and tells a secret: third-gear is out on the 935. How to let on that the whole paddock already knows?

At 20:20, the manager of Blue Thunder Racing, who has been chatting with one of his mechanics, suddenly breaks off the conversation and begins shouting orders. Lanier has just radioed that he's coming in with a flat, left-front tyre. Journalists and photographers swarm to the March pit. Lanier rejoins the race, but is now a lap behind Akin's Porsche. Once around the track and the stopwatches are out as number 57 zooms by. When Lanier appears again, it's to come coasting back into the pits — the front of the car demolished. A new bonnet won't fit right and a mechanic is desperately trying to tape the left side down with adhesive strips, while another douses the March's steaming radiator with a spray of water. Number 57 moves jerkily into the pit lane, then stalls. Men run to give the car a push-start. In response to a question, Bill Whittington shrugs, *"We've lost a couple of laps. And probably the race."*

Next thing Hans Stuck, is again preparing to take over from Akin. After a moment, sitting on a pile of tyres, he gets up and goes to stand in the middle of the pit lane facing the exit from the track. His feet planted defiantly, fists on his hips, he cuts a dashing figure, wearing the hood left over from his F1 days. It's hard to imagine how the competition might resist this giant of a man.

At 21:00, the number 5 Porsche refuels in just under a minute, a perfectly orchestrated maneuver. (Nevertheless, an unlucky mechanic has mounted the left-front wheel out of alignment with the wheel pegs, but nobody knows it yet.) During this time, Heyer takes over the lead. But Stuck is gaining on him, seven seconds each lap. The 935 in the livery of Henn's Swap Shop is running slower and slower, its turbo gasping. Wollek is pacing back and forth, compulsively chewing gum. It's not surprising he's a bit edgy. On the other hand, Akin is being interviewed by a television crew. The New Yorker, with chiseled features, wire-rim glasses and distinguished grey hair, sports a baseball cap bearing the CocaCola logo. O'Steen passes him a can of his favourite drink. In the USA, advertising is serious business.

It's now 21:12, and Blue Thunder Racing are in for another passel of problems. Whittington roles to a stop in the pits, the March's radiator practically sitting in the driver's seat. Another three laps losts. At 21:15, Stuck passes Heyer and is once more out front. However, there is a sickening vibration in the left-front wheel housing. Afraid he is about to lose a wheel, Hans grudgingly pulls into the pits. Akin gives a nod and comes back to tell O'Steen about the extent of the damage. Like a couple of crows perched on their wall, they vaguely follow the action as number 5's mechanics hammer the wheel off. It's misaligned. And the wheel-hub mounting has to be changed. It'll be 20 minutes before Stuck can get back into the race. Add to that the fact he'll be back in the pits one more time, just two laps later, with a left-rear flat. Chance can deal a blow below the belt from time to time as well. And from then on, the Porsche number 48, the one nobody would have made book on the day before, would continue to sail ahead, uneventfully, toward victory.

Xavier Chimits

12 HOURS OF SEBRING

Round 3 of International Motor Sports Association (IMSA) 1984 Camel GT (GTP, GTX, GTO,GTU) championship.
Official race title: Coca-Cola 12 Hours of Sebring Camel GT.
Date: March 24, 1984.
Race distance: 12 hours on a 4.86-mile (7.82km) circuit, slightly modified since 1983.
Weather conditions: sun and light breeze, Thursday; rain, Friday; hot and muggy, Saturday.
Attendance: 70,000.

FINAL RESULTS

1. Porsche 935 (De Narvaez/Heyer/Johansson), 263 laps, for 1,278.2 miles (2,057km) in 12h01m11.415s, an average of 106.4 mph (171.2 km/h).

2.	**March 83G/Chevrolet**	**Lanier/Bill Whittington/Hinze**	**261 laps**
3.	**Andial Porsche 935**	**Foyt/Wollek/Bell**	**258 laps**
4.	**Porsche 935**	**Baker/Mullen/Blackaller**	**258 laps**
5.	**Porsche 935**	**Akin/O'Steen/Stuck**	**256 laps**
6.	**Porsche 935**	**Graham/Gralia/Henn/Wollek**	**246 laps**
7.	**Lola T600-Chevrolet**	**Morton/Garcia/Adamowicz**	**244 laps**
8.	**Chevrolet Camaro**	**Hagan/Felton/Labonte**	**243 laps**
9.	**Mazda RX7**	**Baldwin/Young/Reed**	**238 laps**
10.	**Datsun ZX**	**Alderman/Baird/Price**	**234 laps**
11.	**Jaguar XJR5**	**Redman/Bedard/Fuerstenau**	**234 laps**
12.	**Porsche 911**	**Tilton/Bridgen/Bond**	**234 laps**
13.	**Mazda RX7**	**Bacon/Guest**	**222 laps**
14.	**Porsche 911**	**McDonald/Defranceschi**	**222 laps**
15.	**Porsche 911**	**Higgins/King/Cherry**	**221 laps**
16.	**Porsche 914/6**	**Selby/Roe**	**221 laps**
17.	**Mazda RX7**	**Mandeville/Johnson/Danny Smith**	**221 laps**
18.	**Porsche 911**	**Mendez/Soldevilla/Marte**	**217 laps**
19.	**Mazda RX7**	**Dan Marsh/Pawley/Kelly Marsh**	**216 laps**
20.	**Porsche 935**	**Almeida/Marejon**	**216 laps**
21.	**Chevrolet Corvette**	**Tim Morgan/Pete Morgan/Bair**	**215 laps**
22.	**Porsche 924 GTR**	**John Jellinek/Edlis/Brennan**	**212 laps**
23.	**Ferrari 512BB**	**Tom Shelton/Steve Shelton/Davis/McComb/Ballot-Lena**	**211 laps**
24.	**Mazda RX7**	**Mueller/Visger/Casey**	**208 laps**
25.	**Porsche 924 GTR**	**White/Drolsom/Kendall**	**202 laps**
26.	Porsche 911	Case/Panacciane	186 laps, retired (no reason given)
27.	**Porsche 911**	**Hulse/Kennedy/Cheung**	**183 laps**
28.	Pontiac Firebird	Allen/George Schwarz/Andre Schwarz	181 laps, retired (no reason given)
29.	**Chevrolet Camaro**	**Boyer/Roberts**	**181 laps**
30.	**BMW M1**	**Montoya/Goellnicht/Roe**	**180 laps**
31.	**BMW M1**	**Bieri/Gyster/Pallavicini**	**177 laps**
32.	**Chevrolet Camaro**	**George Shafer/Craig Shafer/Maloy**	**170 laps**
33.	Porsche 911	Van Every/Tisdelle	169 laps, retired (transmission)
34.	Pontiac Firebird	Frank Jellinek/Fassler/Molnar	167 laps, retired (no reason given)
35.	**Chevrolet Corvette**	**Currin/Gentile/Cook**	**161 laps**
36.	March 82G-Porsche	Cowart/Miller	158 laps, retired (broken rear suspension)
37.	**Pontiac Firebird**	**Bill Gardner/Durovy/Debra Garäner**	**149 laps**
38.	Lola T600-Chevrolet	Kalagian/Lloyd	148 laps, retired (engine)
39.	Mazda RX7	Rubino/Rodriguez/Leira	146 laps, retired (suspension)
40.	**Chevrolet Corvette**	**Keck/Whitaker/Wessel**	**138 laps**
41.	Buick Skyhawk	Lee/Myers/Julian	137 laps, retired (no reason given)
42.	Mazda GVS-1	O'Brien/Van Steenberg	137 laps, retired (off road)
43.	March 83G/Porsche	Van der Merwe/Duxbury/Martin	136 laps, retired (valve spring)
44.	Porsche 935	Ballot-Lena/Haywood/Holbert	123 laps, retired (engine)
45.	Mazda RX7	Krueger/Hendrickson/Kinner	114 laps, retired (no reason given)
46.	Jaguar XJR5	Tullius/Bundy	114 laps, retired (no reason given)
47.	Rondeau-Chevrolet	Belcher/Rondeau	109 laps, retired (electrical failure)
48.	Pontiac Fiero	Young/Grunnet/Burt	105 laps, retired (engine)
49.	Chevrolet Camaro	Kreider/Newsome/Diehl	103 laps, retired (no reason given)
50.	Porsche 935	Hefner/Griffin/Speer	96 laps, retired (gearbox)
51.	Chevrolet Camaro	Murray/Boy/Valentine	95 laps, retired (no reason given)
52.	Porsche 911	Gordillo/Salguero/Prieto	71 laps, retired (differential)
53.	Porsche 911	Hafstra/Uria/Robinson	69 laps, retired (off road)
54.	Mazda RX7	Fowells/Mummery/Potter	65 laps, retired (fire)
55.	Sauber-BMW	Welti/Fomfar/Valiente	63 laps, retired (engine)
56.	Mazda RX7	Ganz/Hackman	59 laps, retired (engine)
57.	March 84G-Chevrolet	Al Leon/Art Leon/Wolters	56 laps, retired (oil pressure loss)
58.	Porsche 924 GTR	Winters/Bergstrom/Adams	52 laps, retired (rear suspension)
59.	Porsche 911	Wonzer/Cason/Uria	49 laps, retired (engine)
60.	March 84G-Buick	Madren/Speer/Pickering	44 laps, retired (gearbox)
61.	Porsche 911	Williams/Leewardt/Zwiren	43 laps, retired (no reason given)
62.	Chevrolet Corvette	Dingman/Bohren	43 laps, retired (engine)
63.	Porsche 924 GTR	Mena/Gregg/Trueman	40 laps, retired (engine)
64.	Chevrolet Monte Carlo	Chitwood/Lauger/Rios	38 laps, retired (no reason given)
65.	Porsche 911	Bitterauf/Vicki Smith/Albanese	37 laps, retired (no reason given)
66.	Argo-Cosworth	Courtney/O'Neill/Shelton	36 laps, retired (ignition)
67.	Porsche 911	Fonsecal/Jamsal/Febles	32 laps, retired (engine)
68.	Mazda RX7	Dunham/Kline/Lewis	25 laps, retired (engine)
69.	Porsche 911	Coupland/Hulen/Hartill	25 laps, retired (wheel bearings)
70.	Pontiac Firebird	Figaro/Sabino	25 laps, retired (no reason given)
71.	March 83G-Chevrolet	Hinze/Don Whittington	22 laps, retired (no reason given)
72.	Chevrolet Camaro	Loving/Small	20 laps, retired (no reason given)
73.	Porsche 911	DiLella/Cueto	19 laps, retired (engine)
74.	Argo-Mazda	Downing/Maffucci	17 laps, retired (off road)
75.	Chevrolet Corvette	Canary/Barnett	17 laps, retired (no reason given)
76.	Mazda RX7	Burdsall/Welter/Northam	16 laps, retired (suspension)
77.	Porsche 934	Borlase/Hammond/Kravig	12 laps, retired (engine)
78.	Jaguar XJS	McComb/Pettey	6 laps, retired (accident)
79.	Porsche 911	Goral/Hayes-Harlow	5 laps, retired (engine)
80.	Porsche 924 GTR	Schneider/Forbes-Robinson	4 laps, retired (fuel injection)
81.	Chevrolet Camaro	Overbagh/Theall/Kirill	4 laps, retired (electrical failure)

NB: 8 minutes of the race were under the protection of the pace-car, following the shunt of Van Steenberg's Mazda. There were also another 7 minutes, toward 22.15, following the shunt of Bieri's BMW M1.

STARTING GRID

04. JAGUAR XJR5
Redman/Bedard/Fuerstenau
2m18.965
5. PORSCHE 935
Stuck/Akin/O'Steen
2m20.088
6. PORSCHE 935
Bell/Foyt/Wollek
2m21.659
15. LOLA T600-CHEVROLET
Kalagian/Lloyd
2m24.112
86. PORSCHE 935
Heywood/Holbert/Ballot-Lena
2m25.227
41. RONDEAU M382-CHEVROLET
Rondeau/Belcher
2m26.059
16. MARCH 83G CHEVROLET
Hinze/Whittington
2m26.430
4. CHEVROLET CAMARO •
Felton/Hagan/Labonte
2m29.329
61. ARGO JM16-COSWORTH
Courtney/O'Neill/Shelton
2m31.293
46. PONTIAC FIREBIRD •
Jellinek/Fassler/Molnar
2m34.903
87. PORSCHE 924 ■
Forbes-Robinson/Schneider
2m37.498
43. BMW M1 •
Montoya/Goellnicht/Roe
2m39.261
38. MAZDA RX7 ■
Mandeville/Johnson/Smith
2m39.931
25. MARCH 82G-PORSCHE
Cowart/Miller
2m.43.421
85. PORSCHE 911 •
Fonseca/Jamsal/Febles
2m44.237
24. PORSCHE 935
Hefner/Griffin/Speer
2m44.928
21. PONTIAC FIREBIRD •
Allen/G. Schwarz/A. Schwarz
2m45.831
10. PORSCHE 924 GTR ■
White/Drolsom/Kendall
2m46.642
67. CHEVROLET CAMARO •
G. Shafer/C. Shafer/Maloy
2m46.960
58. PORSCHE 924 GTR ■
Mena/Gregg/Trueman
2m49.124
77. CHEVROLET CAMARO •
Loving/Small
2m49.578
55. MAZDA RX7 ■
Ganz/Hackman
2m50.163
84. PONTIAC FIERO ■
Young/Grunnet/Burn
2m52.030
13. MAZDA RX7 ■
Rubino/Rodriguez/Leira
2m52.774
23. PORSCHE 914/6 ■
Selby/Roe
2m52.646
95. PORSCHE 911 •
Gordillo/Salguera/Prieto
2m54.017
0. PORSCHE 911 •
Case/Panacciane
2m35.838
71. PORSCHE 911 •
Higgins/King/Cherry
2m56.105
60. MAZDA RX7 ■
Krueger/Hendrickson/Kinner
2m56.667
69. PORSCHE 911 •
Hafstra/Uria/Robinson
2m58.227
18. SAUBER-BMW
Welti/Fomfar/Valiente
No qualifying time
56. PORSCHE 934 •
Borlase/Hammond/Kravig
No qualifying time
68. PORSCHE 911 •
Mendez/Soldevilla/Marte
No qualifying time
97. FERRARI 512BB
Tom Shelton/Steve Shelton/Davis/Ballot Lena
No qualifying time
40. BMW M1 ■
Bieri/Gyster/Pallavicini
No qualifying time
20. CHEVROLET CORVETTE •
Canary/Barnett
No qualifying time
30. CHEVROLET MONTE CARLO
Chitwood/Lauger/Rios
No qualifying time
42. PORSCHE 911 ■
Wonzer/Cason/Uria
No qualifying time
52. CHEVROLET CAMARO •
Overbagh/Theall/Kirill
No qualifying time
78. PORSCHE 911 ■
Bitterauf/Vicki Smith/Albanese
No qualifying time
94. PONTIAC FIREBIRD
Bille Gardner/Durovy/Debra Gardner
No qualifying time

00. MARCH 83G-PORSCHE
Van der Merwe/Duxbury/Martin
2m19.673
44. JAGUAR XJR5
Tullius/Bundy
2m21.292
14. PORSCHE 935
Wollek/Graham/Gralia/Henn
2m22.940
2. MARCH 83G-CHEVROLET
Al Leon/Art Leon/Wolters
2m25.177
45. LOLA T600-CHEVROLET
Morton/Garcia/Adamowicz
2m25.782
9. PORSCHE 935
Baker/Mullen/Blackaller
2m26.146
3. MARCH 84G-BUICK
Madren/Speer/Pickering
2m26.528
48. PORSCHE 935
De Narvaez/Heyer/Johansson
2m30.874
47. CHEVROLET CORVETTE •
Dingman/Bohren
2m34.459
99. CHEVROLET CORVETTE •
Currin/Gentile/Cook
2m34.974
63. ARGO-MAZDA
Downing/Maffucci
2m38.029
79. PORSCHE 924 GTR ■
Winters/Bergstrom/Adams
2m39.837
88. CHEVROLET CAMARO •
Murray/Boy/Valentine
2m42.371
09. PORSCHE 911 •
Van Every/Tisdelle
2m44.156
66. MAZDA RX7 ■
Dunham/Kline/Lewis
2m44.722
17. MAZDA RX7 ■
Bacon/Guest
2m45.314
32. DATSUN ZX ■
Alderman/Baird
2m46.308
76. MAZDA RX7 ■
Baldwin/Young/Reed
2m46.737
28. PORSCHE 924 GTR ■
Jellinek/Edlis/Brennan
2m48.971
93. MAZDA RX7 ■
Don Marsh/Pawley/Kelly Marsh
2m49.196
62. CHEVROLET CORVETTE •
Tim Morgan/Pete Morgan/Bair
2m50.021
33. JAGUAR XJS •
McComb/Pettey
2m51.909
37. MAZDA RX7 ■
Burdsall/Welter/Northam
2m52.290
27. MAZDA RX7 ■
Fowells/Mummery/Potter
2m53.011
83. CHEVROLET CORVETTE
Keck/Whitaker/Wessel
2m53.772
7. PORSCHE 911 •
Tilton/Pridgen/Bond
2m55.086
64. PORSCHE 911 •
Coupland/Hulen/Hartill
2m55.904
35. PORSCHE 911 •
Williams/Leeward/Zwiren
2m56.132
26. CHEVROLET CAMARO •
Boyer/Roberts
2m58.001
01. PORSCHE 911 •
Hulse/Kennedy/Cheung
2m59.868
51. PORSCHE 911 •
McDonald/Defranceschi
No qualifying time
57. MARCH 83G-CHEVROLET
Lanier/Bill Whittington/Hinze
No qualifying time
82. MAZDA RX7 ■
Mueller/Visger/Casey
No qualifying time
05. PORSCHE 935
Almeida/Marejon
No qualifying time
11. CHEVROLET CAMARO •
Kreider/Newsome/Diehl
No qualifying time
22. PONTIAC FIREBIRD •
Figaro/Sabino
No qualifying time
31. MAZDA GVS-1
O'Brien/Van Steenberg
No qualifying time
49 PORSCHE 935
Goral/Hayes-Harlow
No qualifying time
90. BUICK SKYHAWK •
Lee/Myers/Julian
No qualifying time
03. PORSCHE 911 ■
Dilella/Cueto
No qualifying time

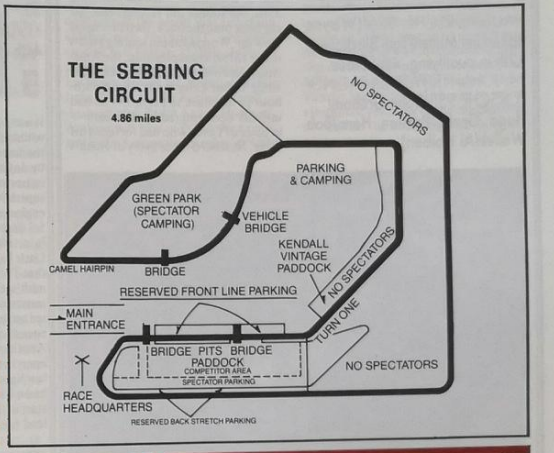
• GTO
■ GTU
NB: All cars that were able to do a fast lap in less than three minutes during the 15-minute warm-up, Saturday morning, qualified, but without a qualifying time.

PREVIOUS WINNERS

1950 : Fritz Koster/Ralph Deshon (Crosley)
1951 : no race
1952 : Harry Gray/Larry Kulok (Frazer-Nash)
1953 : John Fitch/Phil Walters (Cunningham C4R)
1954 : Stirling Moss/Bill Lloyd (Osca)
1955 : Mike Hawthorn/Phil Walters (Jaguar)
1956 : Juan-Manuel Fangio/Eugenio Castelotti (Ferrari)
1957 : Juan-Manuel Fangio/Jean Behra (Maserati 300S)
1958 : Phil Hill/Peter Collins (Ferrari 250 TR)
1959 : Phil Hill/Olivier Gendebien/Dan Gurney/Chuck Daigh (Ferrari)
1960 : Olivier Gendebien/Hans Herrmann (Porsche RSK)
1961 : Phil Hill/Olivier Gendebien (Ferrari TR)
1962 : Jo Bonnier/Lucien Bianchi (Ferrari TR)
1963 : John Surtees/Ludovico Scarfiotti (Ferrari)
1964 : Mike Parkes/Umberto Maglioli (Ferrari)
1965 : Jim Hall/Harp Sharp (Chaparral)
1966 : Ken Miles/Lloyd Ruby (Ford MK II)
1967 : Mario Andretti/Bruce McLaren (Ford MK IV)
1968 : Hans Herrmann/Jo Siffert (Porsche 907)
1969 : Jacky Icky/Jackie Oliver (Ford GT40)
1970 : Mario Andretti/Nino Vaccarella/Ignazio Giunti (Ferrari 512 S)
1971 : Vic Elford/Gerard Larrousse (Porsche 917)
1972 : Mario Andretti/Jacky Ickx (Ferrari 312P)
1973 : Peter Gregg (Hurley Haywood/Dave Helmick (Porsche 911)
1974 : no race
1975 : Hans Stuck/Allen Moffat/Brian Redman/Sam Posey (BMW)
1976 : Al Holbert/Michael Kayser (Porsche 911)
1977 : George Dyer/Brad Frisselle (Porsche 911)
1978 : Brian Redman/Charles Mendez/Bob Garretson (Porsche 935)
1979 : Bob Akin/Roy Woods/Rob McFarlin (Porsche 935)
1980 : John Fitzpatrick/Dick Barbour (Porsche 935)
1981 : Al Holbert/Hurley Haywood/Bruce Leven (Porsche 935)
1982 : John Paul Jr./John Paul Sr. (Porsche 935)
1983 : Wayne Baker/Jim Mullen/Kees Nierop (Porsche 934)

LAP LEADERS

Lap 1: Jaguar XJR5 (Redman/Bedard)
Laps 2 to 3: Jaguar XJR5 (Tullius/Bundy)
Lap 4: March 83G-Porsche (Van Der Merwe/Martin/Duxbury)
Laps 5 to 60: Jaguar XJR5 (Tullius/Bundy)
Lap 61: Porsche 935 (Foyt/Wollek/Bell)
Laps 62 to 69: Jaguar XJR5 (Tullius/Bundy)
Laps 70 to 75: Lola T600-Chevrolet (Morton/Garcia/Adamowicz)
Laps 76 to 175: Porsche 935 (Foyt/Wollek/Bell)
Laps 176 to 218: Porsche 935 (Akin/O' Steen/Stuck)
Laps 219 to 220: Porsche 935 (De Narvaez/Heyer/Johansson)
Laps 221 to 226: Porsche 935 (Akin/O'Steen/Stuck)
Laps 227 to 263: Porsche 935 (De Narvaez/Heyer/Johansson)



CAMEL GT

POLE POSITON
Brian Redman/Jaguar XJR5, 2m18.965s, an average of 125.9 mph (202.6 km/h).

BEST QUALIFYING TIME GTO
Gene Felton/Chevrolet Camaro, 2m29.329s, an average of 117.2 mph (188.6 kmh/).

BEST QUALIFYING TIME GTU
Elliot Forbes-Robinson/Porsche 924 GTR, 2m27.498s, an average of 111.1 mph (178.8 km/h).

FASTEST RACE LAP
Brian Redman/Jaguar XJR5, 2m22.751s, on lap 102, an average of 122.6 mph (197.2 km/h).

FASTEST RACE LAP GTO
Paul Fassler/Pontiac Firebird, 2m33.013s, on lap 27, an average of 114.3 mph (184.0 km/h).

FASTEST RACE LAP GTU
Bob Bergstrom/Porsche 924 GTR, 2m43.582s, on lap 22, an average of 107.0 mph (172.1 km/h).

WINNERS: GTP/GTX
De Narvaez/Heyer/Johansson (Porsche 935).

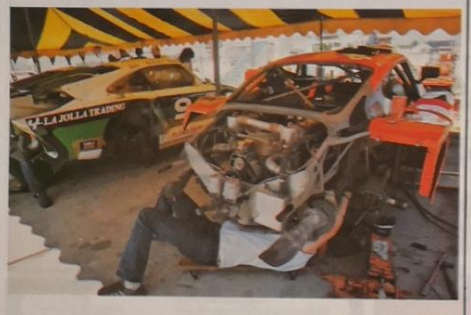
WINNERS: GTO
Hagan/Felton/Labonte (Chevrolet Camaro).

WINNERS: GTU
Baldwin/Young/Reed (Mazda RX7).

PORSCHE GTX

5. BOB AKIN MOTOR RACING/PORSCHE 935/(Bob Akin/John O'Steen/Hans Stuck)
3rd in qualifying, 5th in race
6. HENN'S SWAP SHOP RACING/ANDIAL PORSCHE 935/(A.J. Foyt/Bob Wollek/Derek Bell)
5th inqualifying, 3rd in race.
9. PERSONALIZED AUTOHAUS/PORSCHE 935/(Wayne Baker/Jim Mullen/Tom Blackaller).
12th in qualifying, 4th in race.
14. JOHN FITZPATRICK RACING/PORSCHE 935/(John Graham/Hugo Gralia/Preston Henn/Bob Wollek/Al Holbert).

Haywood. Backed by Lowenbrau, Holbert hopes to have a 962 in time for Riverside, meaning development of the 935 with a shortened tail-section is not at the top of Bayside Disposal's list. Number 86 looked hot in qualifying, however, the Porsche lost more than an hour at the beginning of the race because of a broken stub axle. For another thing, most of this time was spent with Holbert running around looking for tools. Another hour was lost after Haywood hit a wall during mid-race and at a moment when he was lying 33rd. No sooner did Holbert take the car back onto the track, then the engine blew up. Worried about scoring points in the IMSA championship, the American went over to the Fitzpatrick crew, while Ballot Lena made an eleventh-hour switch back to Ferrari — he had initially been entered by this team — in place of Leven who had forfeited his drive. Number 6 in the livery of Henn's



6th in qualifying, 6th in race.
24. PEGASUS RACING//PORSCHE 935/(Bobby Hefner/Jack Griffin).
31st in qualifying, DNF race.
48. MAURICIO DE NARVAEZ/PORSCHE 935/(Mauricio De Narvaez/Hans Heyer/Stephan Johansson).
16th in qualifying, 1st in race.
49. PAUL GORAL/PORSCHE 935/(Paul Goral/John Hayes Harlow).
no qualifying time, DNF race.
86. BAYSIDE DISPOSAL RACING LOWENBRAU/PORSCHE 935/(Hurley Haywood/Al Holbert/Claude Ballot Lena).
9th in qualifying, DNF race.
05. HI-TECH RACING/PORSCHE 935/(Tico Almeida/Miguel Morejon).
no qualifying time, 20th in race.

Swap Shop, sporting a short tail and a high rear spoiler, was prepared by Andial. It dominated the race until the front suspension broke toward nightfall. Later on, trouble with a wastegate valve kept them from taking advantage of mechanical difficulties the front-runners were having. For a long time, it looked as if Bob Akin's 935 would beat the Andial, but because of a degraded gearbox (third gear was completely gone) number 5 slowly lost sight of its rival. A 5th place finish, ultimately due to a front wheel being improperly changed, was the only consolation for an otherwise magnificent race. All the same, it was a surprise after this Porsche's lacklustre performances at Daytona and Miami. There's nothing to say about the 935 of Pegasus Racing. On the other hand, number 14, after a moment of glory in the hands of Bob Wollek who was lying 3rd at one point, was reliable to the end, finishing an honorable 6th. Mauricio De Narvaez's number 48 is no longer the ex-Moretti, which everyone took to be on its last laps at Miami. Jöst has replaced it with a 935, which nonetheless is just as old, although in better shape. The car raced during the 1979 German Championship with Rolf Stommelen. In short, a fine race, perfect preparation, excellent driving (De Narvaez hardly drove at all toward the finish), and a lot of luck — that's how a good car, even one a little bit old, can win 12 Hours at Sebring. All the 935s have 3-litre flat-six engines, except the Andial with a capacity of 3.2 litres. The newer ones have tubular chassis in comparison with the older ones which are monocoques, like number 48.

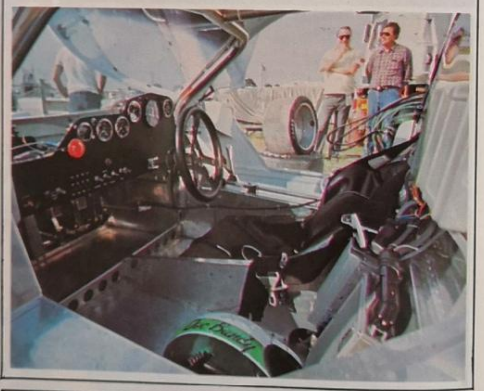
There were nine Porsche GTXs at Sebring, against seven at Miami, but it wasn't the 935 of Hi-Tech Racing, already seen at Daytona, nor Paul Goral's Porsche that upped the German firm's potential. Indeed, neither car took part in the qualifying sessions, and even if number 05 managed to finish the race, although far back, number 49, rudely driven, dropped out after four laps with a blown engine. In the Bayside Racing pit, Holbert was once again in the company of his old friend

JAGUAR

04. GROUP 44/JAGUAR XJR5/(Brian Redman/Pat Bedard/Brian Fuerstenau).
1st in qualifying, 11th in race.
44. GROUP 44/JAGUAR XJR5/(Bob Tullius/Doc Bundy).
4th in qualifying, DNF race.
33. JOHN McCOMB/JAGUAR XJS/(John McComb/Paul Pettey).
44th in qualifying, DNF race.

and Bundy had a series of problems — a puncture, a generator-belt change — that pushed them back to 8th place. Then came a complete overhaul of the rear axle, which cost them two hours in the pits. Finally, toward 20:00, lying 43rd and 88 laps behind the leaders, the fuel injection system forced them to drop out. For his part, Redman who led on the first lap, decided on prudence, and was lying 4th after two hours of racing. After a brief pit stop, to close his left door and turn over the wheel to Bedard, no sooner was number 04 back on the track than it hiccoughed to a stop with faulty ignition. Another 20 minutes were lost repairing the brake lights and the rear suspension. Redman/Bedard, lying 46th, 33 laps behind the front-runners, whittled the lead down to 24 laps by 19:30. Indeed, their climb up the ranks resulted in Redman setting the fastest race lap around 17:00. As for Brian Fuerstenau, a former TransAm driver and longtime friend of Tullius, as well as consulting engineer to Group 44, his skill as an alternate driver proved unneeded. There's not much to say about the XJS, except that John McComb felt it an honour to paint his car in the colours of Group 44. He lost a wheel in a collision on the hairpin at the beginning of the race, then went over to offer his services to the overcrowded Ferrari 512BB team.

It was a frustrating meet for Group 44, whose Jaguars were without a doubt the fastest cars on the track. Entered by Jaguar Cars, the North American importer located in New Jersey, the superb XJR5s, designed by Group 44's engineer Lee Dykstra, are powered by 5.3-litre, normally aspirated and fuel injected V12s, developing 600bhp. Little has changed since Miami, except that Tullius, who wanted to give Redman's experimental engine management system a try, had number 44 painted on the Jaguar which won the second round of the IMSA championship. Another detail: in order to tell them apart in the night, number 04 had a yellow light on the roof, while number 44 had a white one. After an outstanding start in the race, which put them in the lead for the first three hours, Tullius



ARGO

61. DECO SALES/ARGO JM16-COSWORTH/(Don Courtney/Brent O'Neill/Steve Shelton).
17th in qualifying, DNF race.
63. RGP 500 RACING/ARGO JM16-MAZDA/(Jim Downing/John Maffuci).
22nd in qualifying, DNF race.

St James Trueman's Argo-Cosworth was again a non-starter. As a result, the Swiss Jo Marquart's firm, located at Griston in Suffolk GB, was represented by the JM16 number 63, already 9th at Daytona, and the Argo of Deco Sales. Number 63 has a 13B Mazda 1308cc twin-rotor engine, developing 300bhp. Number 61 uses a 2993cc Cosworth DFV, pumping out 475bhp. With a DFL (3300cc or 3955cc), the Argo number 61 would not have been able to make it into the 700kg class with the Argo-Mazda. Of little consequence, since Maffuci wrecked his car on the 18th lap, going into the fast right at the end of the straight. Courtney was forced to stop on the fourth lap because of clutch trouble, and did not get back into the race until three hours later. The Argo-Cosworth finally threw in the towel after five hours of Sebring, a victim of faulty ignition. The car had only covered 36 laps.

LOLA

15. KALAGIAN ARDISANA/LOLA T600-CHEVROLET/(John Kalagian/John Lloyd).
7th in qualifying, DNF race.
45. CONTE RACING/LOLA T600-CHEVROLET/(John Morton/Tony Garcia/Tony Adamowicz).
10th in qualifying, 7th in race.

Since the BF Goodrich T616-Mazda and the Hi-Tech T600 (they preferred to enter a Porsche 935) were absent at this year's Sebring, Lola's hopes rested on Conte Racing's T600, with a Chevrolet 5-litre V8 pepared by VDS, and on Kalagian Ardisana's T600, with the same Chevy engine, but prepared by Lozano Bros. John Morton was seconded by Tony Garcia, Fittipaldi's teammate at Miami, and Tony Adamowicz, a Datsun driver. Constantly near the front at the beginning of the race, number 45 took advantage of the other cars' refueling and Tullius's Jaguar's troubles to briefly take over the lead in the third hour of the event. But this moment of glory was short lived, and a suspension failure cost the Conte team 50 minutes, leaving them in 27th place when the car finally rejoined the race. All the same, number 45 resolutely crept back to the forefront to finish a well-deserved 7th. A fine performance as well, although cut short, from John Kalagian's Lola. Indeed, the engine blew up in the seventh hour, which was a disappointment, since number 15 had been lying between 3rd and 7th place right from the start. In conclusion, these two Lolas are a bit heavy to be really competitive, while their Chevy engine are not reputed as being the most powerful on the market.

RONDEAU

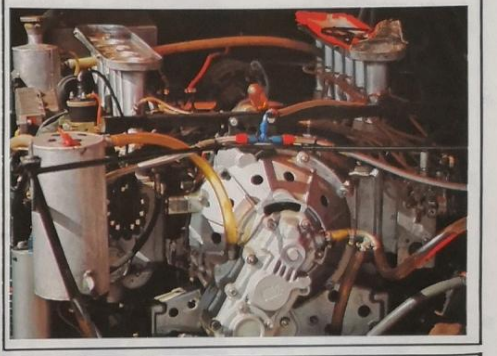
41. SILVER LAKE PLANTATION/RONDEAU M382-CHEVROLET/(Jean Rondeau/Gary Belcher).
11th in qualifying, DNF race.

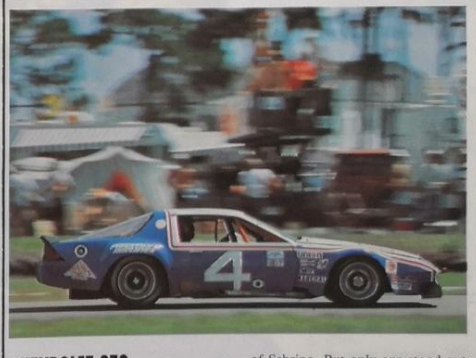
Gary Belcher, whose holdings are diverse enough to include an ambulance constructor and a spear-gun manufacturer, again asked Jean Rondeau to help drive his M382, with a Chevy 6-litre V8 prepared by VDS. As of the warm-up lap, Jean Rondeau had to return to the pits to replace a broken spark plug. Three laps were lost. At the end of two hours of racing, the M382 had climbed back up to 16 th place, only five laps behind the leaders. From then on, a passel of minor problems due to insufficient preparation plagued the team. For instance, the engine cover broke apart, followed by the alternator failing, and Gary Belcher finally had to abandon the French car on the track. After six hours of Sebring, the fuel injection system had given up the ghost, while the car had been lying in 30th place.

FERRARI

97. TIDE & MOSLER RACING/FERRARI 512BB (Tom Shelton/Steve Shelton/Tom Davis/Claude Ballot Lena/John McComb)
no qualifying time, 23rd in race

This Palm Beach, Florida team, who justly pride themselves on being the only crew in the world that can claim kinship with Ferrari GT, originally entered two Ferrari 512BBs. In number 96, which won in its class at the 1981 Le Mans driven by Andruet/Ballot Lena, Tide & Mosler Racing entered — Andruet and Ballot Lena. However, Andruet was kept in France by a rally, and Ballot Lena sealed number 96's fate by blowing up a new engine following a drop in oil pressure the first day of practice. Only number 97 remained, formerly Preston Henn's, then driven by the Shelton brothers in 1983 at 12 hours of Sebring. The Ferrari not being terribly competitive, Ballot Lena was allowed to join Holbert and Haywood, driving Bayside Disposal's Porsche 935. But the Porsche dropped out, and Ballot Lena finished the race at the wheel of this 512BB anyway. In addition, he had to deal with worries stemming from the front bodypanel supports, which had been awfully overstressed by the state of the Sebring track. This way, it was a patched up Ferrari, held together by wire and adhesive tape, that crossed the finish line. Indeed, the car had practically flown apart when Van der Merwe forced his way by in the afternoon, resulting in the car bashing its nose on the retaining wall in front of the stands.





CHEVROLET GTO

4. STRATAGRAPH-PIEDMONT/CHEVROLET CAMARO (Billy Hagan/Gene Felton/Terry Labonte)
15th in qualifying, 8 th in race

Plenty of car-guys still believe in Chevrolet in IMSA. And seven Camaros, five Corvettes and one Monte Carlo were at the starting line for 12 Hours of Sebring. But only one stood out: Hagan/Felton/Labonte's, which repeated its performance at Daytona, and won in the GTO class. Felton had to leave Sebring after driving the Camaro for the first three hours of the race, to be at the bedside of his ailing father. Briefly held up by a suspension problem, the Stratagraph Camaro dueled for several hours with Jellinek/Fassler/Molnar's Pontiac Firebird. After having led in its category at the start, the Camaro again took over the lead toward 17 00 and was from then on untouchable — especially since the feisty Firebird had had to drop out.

MARCH

2. LEON BROTHERS RACING/MARCH 84G-CHEVROLET (Al Leon/Art Leon/Terry Wolters)
8th in qualifying, DNF race
3. PEGASUS RACING/MARCH 84G-BUICK (Ken Madren/M.L. Speer/Wayne Pickering)
14th in qualifying, DNF race
16. MARTY HINZE RACING/MARCH 83G-CHEVROLET (Marty Hinze/Don Whittington)
13th in qualifying time, DNF race
25. RED LOBSTER RACING/MARCH 82G-PORSCHE (David Cowart/Kenper Miller)
27th in qualifying, DNF race
57. BLUE THUNDER RACING/MARCH 83G-CHEVROLET (Randy Lanier/Bill Whittington/Marty Hinze)
no qualifying time, 2nd in race
00. KREEPY KRAULY RACING/MARCH 84G-PORSCHE (Sarel van der Merwe/Graham Duxbury/Tony Martin)
2nd in qualifying, DNF race

Instead of the 83G-Chevrolet seen at Daytona and Miami, Red Lobster Racing entered an 82G-Porsche. This makes sense, since they plan to run an 83G-Porsche. This makes sense, since they plan to run an 83G-Porsche for the rest of the '84 IMSA season. Kreepy Krauly Racing still has its 83G, with bodywork and suspension borrowed from an 84G, but the South African team has bought an 84G chassis, which should be on the lists at Road Atlanta. The 3-litre 6-cylinder Porsche that powers this March is prepared by Andial. Number 57, with a Chevy 5-Litre V8 by ProMotor Engineering, is the March driven by Emerson Fittipaldi at Miami in the livery of Ralph Sanchez Racing. It is now painted a striking white with two-tone black and blue stripes. Marty Hinze Racing's number 16, with a Chevy 5-litre V8 prepared by Ryan Falconer, only went for 22 laps in the race before Marty simply gave up on it in the pits, to go over to Blue Thunder's March. For another thing, no one seems to have seen Don Whittington at Sebring. The Buick 3,4-litre V6, with a single Japanese Warner-Ishi turbo, of the Pegasus 84G is prepared by McLaren Engines and looked hot at Sebring. As for the Leon Brothers, they repeated Daytona by having Terry Wolters again drive their 84G, with a Chevy 5-litre V8 by VDS. The fastest of the Marches, Kreepy Krauly's, probably would have been sitting pole thanks to van der Merwe and a turn of the screw on the turbo pressure, but Friday's rain dampened their chances. The car battled with Tullius's Jaguar for 1st place at the start of the race, before dopping back, the victim of a fuel injection problem that messed up the mix and was the ultimate cause of its retirement. Indeed, number 00 dropped out after six hours of racing, its engine blown, while lying 15th. Another point: it was then running with a left door borrowed from Red Lobster. It had lost its own toward 17 00 in turn 1. The Leon brothers' March, still a clash of pinks and purples, lost its bonnet on the first lap, at the start. After three hours of Sebring, it disappeared as well, oil pressure zero, and getting nowhere in 40th place. Red Lobster's March didn't do so well in qualifying because of gearbox trouble. In the race, it came into the pits after three laps to change its fuel pump, which cost the team 1 1/4 hours. Number 25 then fought its way back to 24th place, before dropping out, 9 hours of racing completed, and its rear suspension busted. Pegasus Racing's March-Buick blew up its gearbox during the fourth hour of the meet after already losing 1 1/2 hours in the pits, jammed in third. In conclusion, the Blue Thunder March made the best showing, and even might have carried the day, if it hadn't been for a number of incidents and fender-benders all of which happened toward the end of the race. Up until then the car had been brilliantly driven, climbing from the back of the grid — transmission trouble had kept it from setting a qualifying time — to rival the leaders. In 14th place after the first two hours, this 83G steadfastly pushed its way to the front finally reaching 2nd place in the eigth hour of Sebring.

SAUBER

18. EUROPEAN PERFORMANCE PARTS/SAUBER C7-BWM (Max Welti/"Fomfor"/Willy Valiente)
no qualifying time, DNF race

With Albert Naon satisfied to act as team manager, the Swiss Max Welti, Sauber's test driver, found himself a drive with this very Latin American crew. Nowadays, European Performance Parts is the owner of the Sauber C7, with a BMW M1, 6-cylinder inline 3.5- litre engine, which up until now has been rented from Sauber. This car finished 9th in the last 24 Hours at Le Mans. The smart-looking Sauber, starting at the back of the grid after last-minute bodywork kept it from runnng in Thursday's qualifying sessions, was able to claw its way up to 13th place by the end of three hours of racing. Then its engine blew up.

GPI'S BEST OF THE REST

It was a difficult choice, what with 81 cars in the grid. Let's start with the ephemeral presence of a 1969 McLaren M12, which was successively owned by Jim Hall, John Surtees, and Jerry Titus, before being bought by Paul Canary in 1973. An old hand of IMSA, Paul did not hesitate to enter his museum piece in the GTP class. The car is powered by a Chevrolet 6-litre engine. The Canadian Eppie Wietzes was seen at the wheel — the same man who recently took a stab at F1 during the last "Maple Leaf" Grand Prix. After setting a modest 3m46.84s qualifying time on the first day of practice, Paul Canary graciously withdrew. The American actor Gene Hackman was also a contender at Sebring, driving a Mazda RX7. He dropped out after 59 laps, his engine blown, but nonetheless is worth remarking because of the extreme kindness with which he answered the autograph hounds. In the GTU category, there was a splendid three-way battle between Baldwin/Young/Reed's Mazda RX7, in Malibu Grand Prix livery, the Porsche 911 of Tilton/Pridgen/Bond, and Alderman/Baird/Price's Datsun ZX. The Mazda RX7 ended up the winner, as it was at Daytona, but the three cars all the same had remained no more than a lap apart for almost the entire second half of the race.

F1 IN THE BACK SEAT

I have, for the past four years, had an order with my newsagent for your magazine, the content of which has been superb. After receipt of the first three editions for this year, I found the content very disappointing and may cancel my newsagent's order. It seems that due to a format change which has included rallying, endurance and other forms of motor racing, F1 has taken a "back seat". This situation may well change when the F1 season starts, but it seems that each issue will now have to be examined prior to purchase. I am amazed that you are risking a magazine which is the "market leader" by changing the format. If you feel that a market exists for a rallying, endurance, etc., magazine, why not produce specials similar to those produced last year or indeed another specialist magazine. "Grand Prix International" should be what it suggests, not questionable under the trade description act. I hope my comments form part of a substantial feedback from concerned readers and hope you can take action to maintain your market leadership and my custom.
Yours truly,

R.F. Gibbins,
Essex, England.

F2 AND F3 PLEASE

Dear Editors,
I feel that I must write a letter about the change in your magazine. In my opinion, it's the worst thing that has happened to it. I just can't see what rallying has to do with F1. Or worse, the American races. I could understand a section on Le Mans, but not the whole Endurance scene (what a bore). In my opinion, it should have been F2 and F3 if you really wanted a change. Because that's where the stars of tomorrow are.
Yours truly,

John Jacobsen,
Denmark.

It is clear that GPI's new format, with the inclusion of other forms of motorsport along with F1, generates much discussion. Many are for, many are against. As we pointed out in an earlier issue (No.74), we have no intentions of sacrificing the quality or space devoted to F1. On the contrary. We hope that by broadening our scope of coverage, we will satisfy those people who are keenly interested in rallying and endurance as well as F1. Neither is it exactly true that F1 has nothing to do with these other forms of motorsport. Indeed, you often meet, the same organisers, sponsors, drivers – and even the same public. Worth thinking about.

GPI IS A WINNER

Dear Sir,
As an addicted reader for the past three years I have often sat in awe of the magnificent photographs printed in your magazine. With the recent addition of rallying to the new-look magazine, the photos are even more wondrous and the quality is unmatched by any other publication. These pictures, linked with excellent journalism and up-to-the-minute news of the racing scene make GPI worth every penny. It is evident that GPI considers quality as one of the foremost factors in their production. Keep up the good work and you'll have one reader for life. GPI is a winner.
Yours devoted,

Aidan Preece,
Warwickshire, England.

We find encouragement and get a boost knowing there are readers who judge us by the high quality of our magazine. Amidst all the editorial and printing pressures, we do try our utmost to ensure that the finished product is always first class.

LE LIVRE D'OR DE LA FORMULE 1 1983

R. de Laborderie
Editions SOLAR
8, rue Garanciere
75006 Paris
Price: FF 80

A retrospective look at the 1983 season through Renaud de Laborderie's annual. A classic. De Laborderie is one of those rare writers who really makes you feel as if you are participating in the action. He likes quoting drivers as he talks about their surroundings, their pesonalities and their decisions. In this respect, the annual is more than just a compilation of races, starting grids and results. It's a testimonial. But it's a real pity that the photographs are almost exclusively in black and white. Two ✍, worth the reading, even after Kyalami.

AUTOVIDEO N° 1

Jeff Lehalle
Production Videopress International
7, rue de Lille
75007 Paris
Price: FF 250

This video-cassette will function as a monthly report on motorsport and will be available from various publishing houses. The first cassette offers a 60 minute report done by the talented Jeff Lehalle and deals with four events: the Monte Carlo rally, the Peugeot 205 GTI road-test, the Paris-Dakar Rally and the Swedish Rally. We think this last report was the best, in terms of rhythm, picture quality and commentary, whereas the long Monte Carlo sequence is lacking in imagination. Autovideo no doubt has the means to go a long way and to become a valuable magazine for all motorsport lovers who are lucky enough to have a video recorder. Two ✍ for encouragement.

WHAT'S ON

27/29 APRIL

BELGIAN F1 GRAND PRIX

ZOLDER
Zolder circuit
Begonialaan 21, 3540 Zolder.
Tel: (011) 25.29.77
Untimed practice on Friday and Saturday, 10:00 to 11:30 and timed qualifying from 13:00 to 11:00.
Sunday morning warm-up; 10:30 to 11:00. Race starts at 14:30 on Sunday.
Entry prices: open stands, BF500 Friday, BF500 Saturday, BF900 Sunday. All-in three-day ticket, BF1,300.
Covered stands: BF500 Friday, BF900 to BF1,100 Saturday, BF1,500 to BF1,900 Sunday. All-in three-day ticket, BF2,000 to BF3,000.
100 Belgian Francs = £ 1.20.

4/6 MAY

SAN MARINO F1 GRAND PRIX

IMOLA
SAGIS
Via Calori, 9/D,
40122 Bologna.
Tel: (051) 52.20.75
Untimed practice on Friday and Saturday, 10:00 to 11:30 and timed qualifying from 13:00 to 14:00.
Sunday morning warm-up, 10:30 to 11:00.
Race starts at 14:30 on Sunday.
Entry prices: public enclosures, It.L 11,500 Friday, It.L 11,500 Saturday and It.L 11,500 Sunday.
Covered stands: It.L 11,500 Friday, It.L 11,500 Saturday, It.L 50,000 to It.L 120,000 Sunday.
1,000 Lira = 40 p.

3/6 MAY

WORLD RALLY CHAMPIONSHIP

TOUR OF CORSICA
ASAC Corse et Tour de Corse,
41, cours Napoleon, 20000 Ajaccio.
Tel. : (95) 21.14.07
Wednesday May 2 (08:00 - 12:00 and 14:00 - 18:00); technical verification at Quai l'Herminier (Ajaccio).
Thursday, May 3 (09:00): First stage starts at Ajaccio. Arrival at Bastia, 21:00.
Friday, May 4 (09:00); second stage starts at Bastia. Arrival at Calvi, 17:40.
Saturday, May 5 (05:00). Third stage starts at Calvi. Arrival at Ajaccio, 17:15.
Sunday, May 6 (11:00): Awards ceremony.

COMING UP APRIL 26 IN GRAND PRIX INTERNATIONAL

1 000 KM OF MONZA

The World Endurance Championship starts Easter Monday on the legendary Monza circuit. And everyone will be watching Porsche — whether works cars or private teams running the German machines, the 956s will be hard to beat. Unless Lancia has a surprise in store.

AFRICAN SPECIAL DELIVERY

We'll be breaking some records of our own to get the whole story on the Safari Rally to you, and in time for this upcoming issue of Grand Prix International. Indeed, the Nairobi crowds will hardly have dispersed when you can already be enjoying the worst of what Africa throws at the best of world-class rallying.

USA NONSTOP

The CART Championship and the IMSA series are on the menu as well. Thanks to our news-hounds, on the scene at Phoenix and Road Atlanta. Don't miss the feast - April 26 in GPI.

on sale every other Thursday

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